COLUMBIA BASIN PROBLEMS

HEARINGS

BEFORE THE

COMMITTEE ON INTERIOR AND INSULAR AFFAIRS UNITED STATES SENATE

EIGHTY-FIFTH CONGRESS

SECOND SESSION

CONCERNING COORDINATION OF HYDROELECTRIC PROJECTS AND FACILITIES IN THE COLUMBIA RIVER BASIN

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COLUMBIA BASIN PROBLEMS

WEDNESDAY, MAY 14, 1958

UNITED STATES SENATE,
COMMITTEE ON INTERIOR AND INSULAR AFFAIRS,
Washington, D. C.

The committee met, pursuant to call, at 10:15 a.m., in room 224, Senate Office Building, Senator James E. Murray (chairman of the committee) presiding.

Present: Senators James E. Murray (Montana), chairman, Richard L. Neuberger (Oregon), Frank Church (Idaho), and Henry Dworshak (Idaho).

Also present: Goodrich Lineweaver, Benton J. Stong, and M. C. Mapes, professional staff members.

The CHAIRMAN. The hearing will come to order, please.

The purpose of this meeting today is to explore the progress which the Idaho Power Co. and the Bonneville Power Administration are making on their integration problem, and the status of their negotiations.

Since the issuance of license to the Idaho Power Co. for construction of three small dams in the Middle Snake River, we have had many expressions of interest, concern, and even alarm about the manner in which operation of these dams is to be integrated with the Federal system in the Columbia River Basin.

Because of the interest and concern both in and out of Congress, the committee has attempted to keep advised on the progress of negotiations between the Idaho Power Co. and the Northwest power pool, led by the Bonneville Power Administration.

Unlike the Tennessee Basin, where the river is almost totally developed by the Tennessee Valley Authority, the development and operation of the Columbia Basin involves two nations and it involves integration of both public and private dams and electric power systems.

The committee recently conducted hearings on upper Columbia Basin problems, involving relationships with Canada. The present hearings are intended to explore proposals, steps, and principles upon which the Idaho Power Co. and the Bonneville Power Administration are approaching their integration problem, and the progress and status of the negotiations.

For the information of committee members, we have had published as a committee print proposals made for coordination by the company and by Bonneville Power Administration, together with memorandums and studies which give some light on their meaning and significance.

Also reflected in the committee print are details of discussions which have been going on concerning arrangements for wheeling power to Government preference customers in southern Idaho and Oregon. The company has declined to wheel and the Department of Interior has taken the position that coordination of the systems and wheeling "are not interrelated and one should not be used as a leverage for the other."

I feel that the Government has not only the right but the responsibility to require that wheeling arrangements go into any integration or coordination agreement.

Correspondence in the committee print reflects my position in this regard and the Interior Department's position.

All of the documents in the committee print are pertinent to this hearing and, if there is no objection, I shall make the print a part of the record of this hearing.

(See appendix A, following p. 234.)

I also wish to place in the record a letter I have received from the Chairman of the Federal Power Commission, in response to an inquiry from me, giving us an interpretation of the meaning of article 39 in the Idaho Power Co. license, directing coordination of the company's Snake River dams with the Northwest Power Pool. There has been some dispute whether the word "coordination" was intended to cover only power operations, or both electric power and stream management. I shall put in the record at this point the letter from Chairman Kuykendall, indicating coordination of both power and water operations was intended.

(The communication referred to follows:)

FEDERAL POWER COMMISSION,
Washington, D. C., May 7, 1958.

Project No. 1971.

Hon. JAMES E. MURRAY,
Chairman, Committee on Interior and Insular Affairs,
United States Senate, Washington, D. C.

DEAR MR. CHAIRMAN: This is in response to your letter dated April 30, 1958, requesting an interpretation of article 39 and its relation to articles 42 and 43 of the license issued to Idaho Power Co. for project No. 1971.

Article 39 is as follows:

"The licensee shall operate the project and its system in coordination with the Northwest Power Pool, and shall arrange for such transmission facilities as may be required for such operation."

Articles 42 and 43 prescribe regulations and requirements for operation of the projects works in the interests of flood control and navigation, respectively. Any plan for coordination under article 39 must provide for compliance with articles 42 and 43.

The coordination required under article 39 contemplates management of storage releases from Brownlee Reservoir and transfers of power between the system of the Idaho Power Co. and other systems of the Northwest Power Pool so as to achieve the maximum utilization of the water resources of the Snake River involved for power and other purposes in coordination with the Northwest Power Pool.

The Idaho Power Co. system has its heavy energy demands during the summer resulting from irrigation pumping among other loads as compared with winter energy demands. On the other hand, the combined load of other systems in the Northwest Power Pool has its heavy energy demand in the fall and winter, with the peak demand usually occurring in January. The Columbia River plants of the Northwest Power Pool usually have sufficient water to generate energy in excess of the firm powerload requirements during the summer when the Idaho

Power Co. system under the condition of independent operation would be using storage releases from Brownlee Reservoir.

To the extent consistent with articles 42 and 43, Brownlee stored water could be retained for use during the fall and winter to increase the regional prime power, and Idaho Power Co. heavy summer energy demands could be met with the assistance of secondary and other energy from other systems in the Northwest Power Pool.

Informal negotiations looking to a plan of coordination have been underway since January 1956 between Idaho Power Co., Bonneville Power Administration, Corps of Engineers, Bureau of Reclamation, and the Washington Water Power Co. Commission staff members have attended the several conferences. Progress has been made toward an agreement on a plan of operation and the benefits to be gained from coordination.

Some of the transmission facilities needed for coordination were scheduled for completion in April 1958. Brownlee powerplant is scheduled for initial operation in the late summer or early fall of 1958.

The foregoing outlines the situation to date. We will be glad to furnish any additional information you may desire.

Sincerely yours,

JEROME K. KUYKENDALL, *Chairman.*

The CHAIRMAN. Mr. Kuykendall writes us:

The coordination required under article 39 contemplates management of storage releases from Brownlee Reservoir and transfers of power between the system of the Idaho Power Co. and other systems of the Northwest Power Pool so as to achieve the maximum utilization of the water resources of the Snake River involved for power and other purposes in coordination with the Northwest power pool.

Like most other members of this committe, I am not an engineer and find it difficult to interpret all the technical details of the coordination proposals and negotiations. I have been somewhat startled, however, by the Idaho Power Co.'s suggestion in its proposals to the Northwest Power Pool that integration power supplied the company be classified to include a category of power, class A, which would be supplied the company at no charge. Likewise, I find no explanation in two suggested methods of settlement submitted by the company, for charging the company with only four-tenths of the integration energy delivered to them, which would, in effect, give the company a 1-mill power rate from the Federal system, instead of the 2½-mill rate upon which Bonneville Power Administration is insisting.

Another aspect of this matter which I hope the hearing will clarify is the company's request, in its proposal, for a priority on increased generation downstream resulting from Brownlee. Such a priority would appear to conflict with the preference clause in the reclamation laws.

Because of their interest and knowledge of the area, I have asked Senators Church and Neuberger to cooperate with the Chair in the conduct of the hearings when I am unable to be here because of conflicting committee meetings. Both of these Senators are expert on Columbia Basin development. Senator Church has given special study to matters which will be taken up at this hearing.

Since the Idaho Power Co. made the first proposal for integration, it had been intended to hear the company present its proposals at the outset of these hearings.

However, there was delivered to my office when it opened this morning a telegram from Mr. T. E. Roach, president of the company,

declining the committee's invitation to appear. Mr. Roach wired, and I quote:

> As a charter member of the Northwest power pool group our facilities have been interconnected and our operations voluntarily coordinated with pool since 1941. Through additional 230,000-volt transmission facilities already completed or now being constructed as well as contractually committed for later date construction. Those hydro facilities now building will likewise be interconnected and operated in coordination with pool. Necessary arrangements for this coordination including interchange agreements with pool members have been concluded. Appreciate invitation but our entire staff is so committed to urgent and essential duties concerned with completion of Brownlee unit in time to meet critical power needs of service areas that absence from assigned task is not possible.

Since this telegram arrived only a few minutes ago, the full meaning of certain obscure phrases, implying that the company has already arranged the coordination required by its license, is not entirely clear.

It is clear, however, that the Idaho Power Co. is declining to cooperate with this committee on a voluntary basis in its study of coordination problems. I must say that this is not surprising. Just how the company can defend its demand for 2½ kilowatt-hours from Bonneville Power Administration for every kilowatt it delivers Bonneville is hard to understand. Just why it once proposed for Bonneville to deliver large blocks of summer power to the company at no charge is also difficult to understand.

We will proceed with the hearing with the witnesses now present.

We will then consider whether it is essential to have the company appear and the committee will act accordingly.

If the Bonneville Power Administration is represented here today, and I am sure they are present, we will request them to give us the background and their view of the coordination negotiations to date.

Secretary Aandahl is here, I understand. He will be the first witness.

STATEMENTS OF FRED G. AANDAHL, ASSISTANT SECRETARY (WATER AND POWER), DEPARTMENT OF THE INTERIOR; WILLIAM A. PEARL, ADMINISTRATOR; J. LANE MORTHLAND, ASSISTANT ADMINISTRATOR; C. E. MOHLER, ENGINEER; AND BERNARD GOLDHAMMER, COMMERCIAL OPERATIONS OFFICE, BONNEVILLE POWER ADMINISTRATION, PORTLAND, OREG.; EDWARD WEINBERG, ASSISTANT SOLICITOR, DEPARTMENT OF THE INTERIOR, WASHINGTON, D. C.; AND LEON JOUROLMON, ASSISTANT REGIONAL SOLICITOR, PORTLAND REGION, PORTLAND, OREG.

Mr. AANDAHL. Mr. Chairman, I would like the representatives of the Bonneville Administration to be present at the table, too.

The CHAIRMAN. That will be proper. Come forward.

Mr. AANDAHL. Mr. Chairman, I do not have a prepared statement but would like to offer an opening remark or two.

We are very glad to cooperate with your committee in a review of the progress of the negotiations and the plans for coordination between the Idaho Power Co. and the Bonneville Power Administration.

Since late in 1955, the Administrator of the Bonneville Power Administration and his staff have had a number of meetings and ex-

changes of opinion with the representatives of the Idaho Power Co. During all that period up to the present time, the Administrator of the Bonneville Power Administration and his staff have occasionally met with me in my office and we have informally reviewed the progress of those negotiations and, in the process of those informal conferences, we have developed an understanding of what we thought should be the position of the Bonneville Power Administration insofar as we had basic information at that time and were familiar with the problems that were involved in the negotiations.

Mr. Chairman, I would like to have you call on Dr. Pearl to read a prepared statement outlining the negotiations and the exchanges that the Bonneville Power Administration has had with the Idaho Power Co.

Mr. Mohler, of his staff, has a further statement that he will be willing to give a little later on.

The CHAIRMAN. Dr. Pearl, then, will be the next witness.

Mr. PEARL. I have a prepared statement that I would like to give you. I would like to just cover that rather briefly. It is really a résumé of the negotiations that we have had with the Idaho Power people giving a complete history of all of the meetings from the first meeting we had.

After we had our first meeting, it was our opinion that we should make a study and by that I mean have our engineers make a study to determine what benefits would accrue from the coordination. So a great deal of our time has been spent in making such a study of what the actual benefits would be.

During this time we have not submitted a proposal for it was our feeling that after we had made these studies and had these meetings with the Idaho Power Co., we would then visit with the Secretary and the Solicitor in Washington to go over our proposal with them before we submitted it to the Idaho Power Co.

As a result of this, I have brought along the man in my staff who was responsible for all the integration studies and likewise a member of my staff who prepared our proposal that we submitted to them.

I have covered all of this in my written statement and I would elect to say that our discussions as far as Bonneville is concerned up until our final proposals, which were just recent, were merely discussions to bring out all the facts before we submitted our final proposal that we submitted to them after making these, what I call, elaborate studies, because they do become rather complicated in that the Idaho system and the Federal system have a different critical year, have a different load curve; in other words, our heavy load is in the winter, their heavy load is in the summer; so that after taking all of these into account, we did then visit with Secretary Aandahl and go over with him the proposal that we have made which is also in my report.

Just briefly we have proposed to the Idaho Power Co. two methods of procedure.

One would be to have an exchange of power on a 1-for-1 basis; that is to say, that during the summer we would provide them with power to carry their load and to fill and hold the dam. That is during their heavy load. During the winter which is our heavy load, they would return this power to us kilowatt for kilowatt. That is our proposal 1.

Then we submitted an alternate proposal wherein we will coordinate on a 1-for-1 basis from August 1 through April 30. During the 3 months of the summer when we have this large excess power, and I mean power that is now going to the ocean, we would sell to them on a basis of 2½ mills the power required for holding the dam and filling the dam and for carrying their loads.

I have Mr. Mohler here, who can give you the figures on what accrues by way of benefits to the Federal system and to the Idaho Power system as a result of either one of these proposals.

To return to the proposals that they submitted to us previous to this study, I have never been prone to call those proposals for when they brought them in, they stated that these were just to start the discussions.

The CHAIRMAN. Were they in writing?

Mr. PEARL. Yes they were in writing. Of course, they were discussed at our meetings.

I think that is a brief statement of our negotiations. They have been going on as you know, of course, since late 1955.

The CHAIRMAN. Do the members of the committee wish to ask any questions?

Senator NEUBERGER. Mr. Chairman, I believe one thing should be taken notice of in the hearing record; that is the telegram you have received from the president of the Idaho Power Co. When the Idaho Power Co. was seeking the great Hells Canyon site this Senate Office Building and the Capitol Building just swarmed with their spokesmen, attorneys, lobbyists, all sorts of spokesmen for the Idaho Power Co., which, of course, was their right as citizens of the United States. Today when this committee is reviewing their proposed contract with the Bonneville Power Administration evidently there is not one spokesman or representative of the company who can come here and present the company's side of this issue.

It seems to me that that is extremely significant and notice should be taken of it at the start of this hearing.

Senator CHURCH. Would the Senator yield on that point?

Senator NEUBERGER. Certainly.

Senator CHURCH. I subscribe to what the Senator from Oregon has said and although I have just received a copy of this telegram, I am wondering, Mr. Secretary or Dr. Pearl, if you have received copies of this telegram and have had an opportunity to read it over up to now. It has just come in.

In fairness to you, I think you gentlemen ought to have an opportunity to review this telegram rather carefully because I will be interested in your interpretation of some of the statements made in the telegram including the statement that presumably the coordination required by the license has already been taken care of by agreements already concluded by the company, what that means with respect to Bonneville Power Administration, and what it means with respect to the prolonged negotiations that you have engaged in with the Idaho Power Co. which have not yet been consummated.

I think that there are many questions that arise from the telegram to which we need answers and we should like to have your assistance in interpreting this telegram in the absence of Idaho Power.

Senator Neuberger, it is not only that Idaho Power Co. has not come here to cooperate but they have declined an invitation to do so which I think is very significant.

Senator NEUBERGER. Will the Senator yield at that point?

Senator CHURCH. Yes.

Senator NEUBERGER. I think it is further significant that they are not here to present their own case for the agreement they sought from the Bonneville Power Administration. They were invited by the chairman. It seems to me perfectly obvious that if the Idaho Power Co. cared to develop or advocate its agreement that there would be a representative here at the invitation of the chairman of the committee.

Again, I think it is extremely significant that they have declined a specific invitation from the chairman to come here to present their side of this situation.

The CHAIRMAN. The telegram seems to state their position as conclusive. They do not intend to appear. They do not signify any intention or willingness to appear at any time.

Senator NEUBERGER. I think they virtually abandoned their case. They were invited to come. They have not come.

We want to hear Dr. Pearl's presentation on this.

I am certainly openminded on it. I have not been familiar with all the details of the situation but when the company itself does not come to present its side of the matter, it certainly prejudices me against what they are seeking from the Bonneville Power Administration because I just presume that people who have a valid case are perfectly willing to come and present it.

Senator CHURCH. Mr. Chairman, may I suggest that copies of this telegram be supplied to these gentlemen so that they will have an opportunity to study it and might testify on it later?

The CHAIRMAN. The staff will provide the copies. They are being prepared now.

You may proceed, Dr. Pearl.

Mr. PEARL. Would you like to proceed by way of questions or by way of my reading this prepared statement?

Yesterday I received a copy of the bulletin that you have had printed, Columbia Basin Problems, Materials Concerning Coordination of Projects in the Columbia River Basin, and I find that you have a very complete record of everything we have done. My prepared statement is almost a brief of the bulletin that you have put out so that I would proceed in any way that you suggest.

Senator CHURCH. Mr. Chairman, may I suggest that in the interest of saving time in view of the statement made by Dr. Pearl that his statement be incorporated in the record and we proceed now to the questioning.

The CHAIRMAN. The statement will be carried in its entirety in the record.

(Statement referred to follows:)

PREPARED STATEMENT OF DR. WM. A. PEARL, ADMINISTRATOR, BONNEVILLE POWER ADMINISTRATION

BONNEVILLE POWER ADMINISTRATION'S NEGOTIATIONS RELATIVE TO A COORDINATION AGREEMENT WITH THE IDAHO POWER CO.

I appreciate this opportunity to appear before the Interior and Insular Affairs Committee to review the negotiations for coordinating the Idaho Power Co. system with the Northwest Power Pool.

Your committee already has copies of all of our correspondence, conference reports, and drafts of preliminary contracts and coordination studies relative to these negotiations. My remarks, therefore, will be of a general nature, since you have the specific details in the material previously sent you.

During the latter part of 1955, representatives of the Idaho Power Co. stated that they would like to work out a coordination agreement with the Bonneville Power Administration. Article 39 of their license requires coordination with the Northwest Power Pool. The Northwest Power Pool is a voluntary organization and therefore to effect coordination, Idaho Power Co. would have to coordinate with members of the pool. Bonneville, as the member of the pool that would secure the additional generation downstream from the controlled storage and that was already interconnected with the Idaho Power Co., was a logical party to coordinate with.

We concluded that the first steps in such coordination would be to secure the facts. We wanted to know what is involved in such coordination, what is the magnitude of the benefits, and how the Idaho system and the Columbia River Power system could best be operated to secure maximum generation for the area. I brought this problem before my advisory board and suggested the formation of a task force to make such coordination studies with the Idaho Power Co. The Corps of Engineers, the Bureau of Reclamation, and the Federal Power Commission appointed representatives to the task force formed during the latter part of 1955. The report relative to coordination was distributed in December 1955. The respective staffs discussed the studies at a meeting in January 1956 and agreed to accept them. As a result of the reviews, these data have been refined with more detailed analyses of the effects of Brownlee plus Oxbow, and then Brownlee plus Oxbow and Hells Canyon. The respective staffs each made some analysis of what might be accomplished by coordination and how it might be effectuated. Basically, the matter was left at this level until August 1956. During the latter part of August, Idaho submitted to BPA a rough draft of a contract. The Idaho representatives stated the purpose of this draft was to start discussions relative to a contract setting forth certain of the basic ideas they had as to what might be contained in such a contract.

The term of this preliminary contract was through August 4, 2005; in other words, the contract would coincide with the period of Idaho Power Co.'s license. Operations under this contract would result in full coordination and provided that the Idaho Power Co. could purchase the increased power downstream which would be generated at Federal plants as the result of such coordination. The power was divided into various classes, and that which was not salable by BPA was to be given to Idaho without any charge. Other power Idaho was to pay for on the basis of what the Government could otherwise receive in other available markets. Power necessary for reservoir filling and load carrying would be firm. Idaho would provide the necessary transmission facilities to effectuate the coordination.

This preliminary contract was not acceptable to BPA. Almost immediately, BPA pointed out that we would not consider providing Idaho any power without charge. Secondly, BPA felt that its customers should secure some additional power as the result of this coordination rather than Idaho buying all of the resulting power. Furthermore, under the Bonneville Act, we felt that we could not sell firm power to the Idaho Power Co. without a 5-year pullback in favor of the preference customers.

Idaho Power Co. refined their contract and submitted a second draft to us in January 1957. Company representatives stated that the draft was again for purposes of initiating discussion and they recognized that certain aspects of the draft were unacceptable to BPA. The second draft was quite similar to the first draft. Basic to this preliminary contract were operating procedures. These procedures were basically acceptable to BPA and would achieve full coordination.

To show the opposite point of view, the Bonneville Power Administration staff then drew up a rough draft stating the principles effecting coordination which reversed the situation from the Idaho draft and provided that the Government secure nearly all of the additional power resulting from such coordination. The sum and substance of the Government's draft was to the effect that BPA would store water in the Brownlee Reservoir on a firm basis and control the releases of such water. For storage of such water and the generation from it when it was released, BPA would credit Idaho Power Co. the equivalent of a mill per kilowatt-hour in the exchange account. Since Idaho needed this power in summer months, BPA would agree to make such a credit at the time the water was stored rather than at the time of release. Idaho could then take delivery of this power during

the summer and at the end of the contract year settle the balance in the exchange account at our H rate (2½ mills per kilowatt-hour). We ordinarily make storage agreements whereby we charge a mill per kilowatt-hour for generation on the return of such storage in our reservoirs. However, we proposed that the Idaho contract be on a firm basis whereas most of our other storage arrangements are on a nonfirm or excess capacity basis.

These exchanges opened the way for a series of meetings with Idaho Power Co. representatives whereby discussion centered around equitable distribution of the benefits. Idaho suggested at one meeting an arbitrary division of 50–50. On the basis of further discussions, Idaho Power Co. has generally contended that the summertime power was of lesser value than the wintertime power. They pointed to the report prepared for the Bonneville Power Adminisration on its rates by Ford, Bacon & Davis, an engineering consulting firm. This report prepared in 1955 recommended a lower summertime power rate (1 mill per kilowatt-hour), particularly for reservoir filling.

One of the conditions that BPA had to resolve was what were the Government's rights granted under the Federal Power Commission license to Idaho Power Co., particularly article 39 relating to coordination. After analysis of the conditions imposed by the Federal Power Commission in the license granted the Idaho Power Co., and after the policy guidance of the Department of the Interior as expressed in the letter to Senator Murray of March 24, 1958, BPA informed the Idaho Power Co. that the additional generation on the Federal system downstream as a result of this controlled storage could not be taken into account in any agreement. This power would accrue to the Government, as a matter of course, from the license.

Discussions continued and various proposals were made. The sum and substance of most proposals by the power company were a low rate for summertime power. The Bonneville Power Administration has large amounts of power available during the summer months as a result of the large runoff of the Columbia River from melting snow. We have been concerned about marketing such power. We have made analyses of a special rate which we call the S–1 or low availability secondary rate. This rate has never been filed with the Federal Power Commission, but various drafts have been submitted to all BPA customers for comments and suggestions. The intent of the rate is to open a new market for power that is now unsold. During January and February 1958, our discussions with Idaho Power Co. centered around a coordination agreement using a rate similar to our S–1 rate. While these discussions were taking place, BPA stated that there were three proposals that we could consider as the basis for a coordination agreement. They were:

(1) Exchange of power on a 1-for-1 basis. In other words, for each kilowatt-hour we provided Idaho Power Co. during the summer months, they would generate and deliver to BPA 1 kilowatt-hour during the winter months.

(2) A 1-for-1 exchange of power from August 1 through April 30 of each water year. We would provide Idaho Power Co. during May, June, and July power at our dump rate of 2.5 mills per kilowatt-hour. This would be secondary power and Idaho would have to take its chances on delivery. However, there appears to be little question that it would be available the next 10 years at least through July 15. Both Idaho Power Co. and BPA concluded that a contract with a 10-year term would be satisfactory at the present time.

(3) The third proposal was a 1-for-1 exchange August 1 through April 30, and Idaho Power Co. could secure the power from any other source that was available during May, June, and July. We recognize that as a result of the run-of-river plants being constructed, such as Priest Rapids and Rocky Reach, other utilities will have excess summertime energy. Idaho may be able to secure better terms and conditions either as to rate or guarantee of availability than the Government is willing to provide. Therefore, we have agreed that Idaho might secure such power from the most favorable source.

Throughout the negotiations, BPA has agreed that coordination requires that the load-carrying capability of the Idaho system would be brought up to its generation in the critical year (1936–37) of the Northwest Power Pool from Idaho's critical year isolated of 1934–35.

The Idaho Power Co. has felt that any one of the foregoing proposals tends to give the Government an inequitable share of the total benefits.

Idaho Power Co. counterproposed acceptance of 1-for-1 exchange August 1 through April 30 and the purchase of summertime power at our preliminary S–1

rate of approximately 1 mill per kilowatt-hour. In lieu of such purchase, they stated that they would consider an exchange of summertime power for wintertime power on the basis of 2½-for-1. This ratio was arrived at in a comparison of the dump rate of 2.5 mills per kilowatt-hour compared with the preliminary S–1 rate of 1 mill per kilowatt-hour.

After further consideration and discussion within the Department of Interior, we submitted to Idaho Power Co., a letter on April 1, 1958. I am submitting for your records a copy of this letter and of the meeting we had with the Idaho Power Co. subsequent to the letter. I believe these are the only two pieces of correspondence or meetings we have had relating to coordination with the Idaho Power Co., that you may not already have.

In the letter dated April 1, 1958, we informed Idaho Power Co. that we would consider only two alternatives as a coordination agreement with BPA. They were:

(1) Equal exchange of energy with BPA so that Idaho Power Co.'s summertime needs for reservoir filling and load-carrying capability would be assured, or

(2) Equal exchange of energy between BPA and Idaho Power Co. from August 1 through April 30 and Idaho Power Co. purchasing the summertime power it needs during May, June, and July from whatever source they desired. If they decided to secure such power from BPA, we would make it available to them at our regular rates for such purposes. At present, such deliveries would be settled at our H rate (2.5 mills per kilowatt-hour). If a lower rate would be filed and approved in the future, Idaho could purchase under that rate if it met the requirements of the rate schedule. Such deliveries of power during May, June, and July would come after BPA's existing commitments.

We pointed out to the Idaho Power Co. officials that the only way the summertime power can be assured from BPA is on an exchange basis. Any sales would require a 5-year pullback. Secondly, we would not put secondary deliveries to Idaho Power Co. ahead of our existing customers who have longstanding arrangements with BPA. We feel we have an obligation toward our existing utility and industrial customers for delivery of secondary energy which should come ahead of the delivery of secondary energy to any new utility customers. In other words, Idaho Power Co.'s position on the totem pole with respect to secondary energy would be the same as in their existing exchange agreement with BPA.

We have also discussed coordination to include the Bureau of Reclamation system in southern Idaho. Studies made jointly with the Bureau of Reclamation indicate that a small amount of additional firm power can be provided by coordination, using surplus summertime power from the Bonneville Power Administration. We have discussed this matter with the Idaho Power Co. and they have expressed a willingness to negotiate with the Bureau of Reclamation to firm up the southern Idaho plants.

At our last meeting with Idaho Power Co. officials on April 4, 1958, they stated they would like to consider our proposals and analyze them in the light of other means of effectuating coordination with the Northwest power pool. At that meeting we further agreed that Idaho Power Co., under its existing exchange agreement, could obtain power this summer for filling the Brownlee Reservoir.

I would like to state that we are only too happy to cooperate fully with this committee at all times. We will be glad to provide you any additional information, including details, as to any future negotiations and discussions with the Idaho Power Co. on this matter.

The CHAIRMAN. You may proceed with questions, then, Senator.

Senator CHURCH. Thank you, Mr. Chairman.

Dr. Pearl, if it is agreeable to you, we will then proceed with the questions themselves.

I have a few questions that I would like to direct to you this morning.

Beginning with the license itself that was issued by the Federal Power Commision, authorizing the construction by the Idaho Power

Co. of the Brownlee and Oxbow Dams in the Middle Snake, calling your attention to article 39 of that license which reads:

> The licensee shall operate the project and its system in coordination with the Northwest Power Pool and shall arrange for such transmission facilities as may be required for such operation—

I am interested in knowing, Dr. Pearl, how the Government through the Bonneville Power Authority interprets the term "coordination" in the license and specifically what I would like to know is whether you have regarded the term "coordination" in the license as merely requiring coordination of the electric power or whether you have regarded it as requiring this and as requiring hydraulic coordination in the actual use of the reservoir and the water at Bonneville and at Oxbow as well.

Mr. PEARL. During our study of this and before submitting our proposal, of course we discussed the items that you are mentioning at some length. We, at Bonneville, of course discussed this with our regional solicitor and his staff. We also discussed it with the Solicitor's Office here in Washington and I did make a trip to the Federal Power Commission to discuss it with them.

We interpreted "coordination" there in the way that the Federal Power Commission define the word in their glossary. Coordination to us means an operation of the two systems as though they were one. That means, of course, the electric and the hydro coordination both. It is on that basis that we have prepared our proposal.

In connection with the transmission, as you read it in their license, we have cooperated with the Idaho Power Co. in making a study of the transmission necessary to carry out this complete coordination that I have mentioned so that I did have our engineering department prepare a statement regarding the transmission required to carry out the coordination.

Just basically, it states that there is sufficient transmission at present to carry out a complete coordination when the first two dams are completed, but when the third dam is completed there will then be required some additional transmission capacity to carry out the complete coordination.

Senator CHURCH. I am very glad to have your statement on that, Dr. Pearl, because there had been some indication in the correspondence and in the memorandum that has been assembled preliminary to this hearing that left the suggestion that the Bonneville Power Authority felt that hydraulic coordination was not required by the terms of the license.

I am glad to have that point clarified.

It is my understanding that the Bonneville Power Authority feels that the coordination required by the license is hydraulic coordination as well as electrical coordination integrating these two dams into the Northwest Power Pool.

Mr. PEARL. Yes; that is the basis upon which we have proceeded with our studies.

Senator CHURCH. Fine. Now, in this connection, what did your studies show as to the downstream benefits in augmented power production at Government facilities downstream that would be realized by virtue of the coordinated use of the reservoirs at the Idaho Power projects?

Mr. PEARL. Mr. Mohler, of my staff, actually made these calculations in working with the Idaho Power people. In other words, one of my first objectives was to have an agreement on these figures and Mr. Mohler has prepared a statement but, in direct answer to your question, I would suggest that he just give you that figure.

Senator CHURCH. That would be very helpful.

Mr. Mohler, could you give me that figure? My question is, How much increased power would be realized at Government facilities downstream if the operation of the Idaho Power dams at Brownlee and Oxbow is hydraulically coordinated into the entire system?

Mr. MOHLER. The net figure is downstream 46 megawatts.

Senator CHURCH. That would be 46,000 kilowatts, is that correct?

Mr. MOHLER. Yes, sir; that is at the projects that were existing or under construction at the time we made the study.

Senator CHURCH. So that if the Brownlee and Oxbow Dams were not hydraulically coordinated, then you would suffer in the downstream plants or could suffer a loss of 46,000 kilowatts, is that correct?

Mr. MOHLER. That would be the maximum we could suffer. The loss that we would suffer probably would not be that great because some of the storage undoubtedly would be released in the winter when we could use it, but not all of it.

Senator CHURCH. So that the actual loss could go as high as 46,000 kilowatts but might be less?

Mr. MOHLER. It undoubtedly would be less.

Senator CHURCH. The increased power, however, that would be realized through coordination would be 46,000 kilowatts based on the plants that are now in existence or under construction?

Mr. MOHLER. That is only the increase due to the hydraulic portion of the coordination.

Senator CHURCH. Now, since coordination requires, by your interpretation, hydraulic as well as electrical coordination, would it be possible in your view for the Idaho Power Co. to comply with the terms of the license without coming to an agreement with the Bonneville Power Authority respecting hydraulic and electrical coordination?

Mr. PEARL. To carry out a complete coordination requires that they obtain power from some source during the summer so that they could fill the reservoir and hold that and carry their load. Now, in order to carry out this coordination they will have to obtain that power from some source. Bonneville is one of them. Whether they could obtain it from the other members of the Northwest Power Pool is something that they have made a study of. I have not.

Senator CHURCH. But if they were to obtain it from the other members of the Northwest Power Pool, are there any other members of the Northwest Power Pool that have large generating facilities downstream from the Idaho Power dams?

Mr. PEARL. No, there are not any but it would be from some other source of generation not from the Snake River or any part of the Columbia through which the Brownlee water flows. In other words, the Federal generation is the only generation through which the water released at Brownlee flows.

Senator CHURCH. So that hydraulic coordination to be meaningful means coordination with the downstream Government plants?

Mr. PEARL. Well, we have never felt that we could say that the license indicated that they must coordinate with the Federal system at Bonneville. We have made a study as to what can be accomplished by that, which figures we have.

Now, it might be that they could work out another method whereby they could accomplish the coordination, but in any case we would feel that coordination meant that we should get these downstream benefits that Mr. Mohler has just indicated.

Senator CHURCH. I see. In other words, whether or not they can make an arrangement with other members of the pool with respect to the interchange of power that any arrangement must necessarily give to you and the Government facilities downstream the benefit that hydraulic coordination will bring and that necessarily involves the Government, because it is only the Government plants that are located downstream.

Mr. PEARL. Our two proposals to them both bring out that point. Our second proposal whereby they would coordinate with us from August 1 around through April 30, gives us these downstream benefits and it also gives us an exchange of some power that we would of necessity be required to give them during the time when we had the excess power so that we would really derive two benefits and then in turn they could go some place else and buy this power for the 3 months, but we have said that we will sell it to them for 2½ mills during the 3 months as we have indicated in our proposal. That is May, June, and July.

Senator CHURCH. Going to your proposal, Dr. Pearl, in order that we may understand it a little more completely, you have indicated that your last proposal to the Idaho Power Co. involved two alternatives.

Mr. PEARL. Yes.

Senator CHURCH. One was a direct exchange of power on a 1 for 1, that is to say a kilowatt for kilowatt basis, and in the alternative an exchange of power on a 1 kilowatt for 1 kilowatt basis during the approximately 9 months of the year being the fall, winter, and spring months, and then the sale of power at the rate of 2.5 mills per kilowatt during May, June, and July, is that correct?

Mr. PEARL. That is correct.

Senator CHURCH. Now, in connection with this proposal, is it not true that it is a characteristic of the system that the requirements of the Bonneville Power Authority are greatest during the 9-month period and the requirements of the Idaho Power system are greatest during the 3 summer months?

Mr. PEARL. That is correct.

Senator CHURCH. So that, would it not be reasonable to anticipate that during this 9-month period when the requirements of the Bonneville Power Administration are the highest and the requirements of the Idaho Power system are the least, that the Idaho Power system would be furnishing power to the Bonneville Power Administration? The power would be flowing out of the Idaho Power system for the most part toward the Bonneville Power Administration, would that not be so?

Mr. PEARL. Yes, that is correct.

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The thing that I mentioned is that that would actually happen under either one of our proposals. During the time that we need the power they would be returning power to us as a result of this coordination from August 1 through April 30.

I would like to comment on our proposal. You notice that our first proposal is based upon the philosophy that they should coordinate with the Federal Government.

Senator CHURCH. Yes.

Mr. PEARL. The second one is based upon the philosophy that the license says the Northwest Power Pool and we are only one member of it. In other words, the second one makes it possible for them to coordinate with the Northwest Power Pool wherein the Federal Government would not lose any power.

We would receive these benefits from the generation downstream and we would also receive a return of power that was required to coordinate during that 9-month period and we would also receive funds from selling them this dump power that we now have going to the ocean so that you can see why we have 2 proposals. It is a matter of how you interpret their license when it says they must coordinate with the Northwest Power Pool.

Senator CHURCH. Just for purposes of my own understanding of the proposal, what I would like to inquire about is this: Assuming that during the 9-month period the Idaho Power Co. furnishes a large block of power to Bonneville. Now, the summer months come around and the Idaho Power Co. is holding its reservoir and is in need of power because its needs are greatest during the summertime. Now, what credit does the Idaho Power Co. get in terms of your proposal for the power that it has supplied you during the 9-month period? How does it get that back during the summer months? Is that gotten back on a 1-for-1 basis?

Mr. PEARL. That is correct, a 1-for-1 exchange.

Senator CHURCH. During the summer months it is a 1-for-1 exchange. So that, if they get back all they have supplied to you during the 9-month period, it is then that they may purchase additional power for 2.5 mills, is that correct?

Mr. PEARL. That is correct.

Senator CHURCH. I understand. Under the terms of this proposal, what if the Idaho Power Co. does not get back from you during the 3 summer months all of the power that it has supplied to you during the 9-month period? What happens? What kind of credit do they have for the pool of the power that they have not taken back?

Mr. PEARL. Basically, it is our understanding that this exchange becomes effective and they do return the power they get from us during this time. In other words, we are suggesting a coordination wherein we exchange on a 1-for-1 basis.

Senator CHURCH. That there will not be any overhang?

Mr. PEARL. There should not be but we do have an exchange account with them whereby we could elect not to balance the books every year but we expect, over a course of time, to get back the power that we furnished them on a 1-for-1 basis.

If our exchange account indicated that they owed us power, it would be paid for on a 2½-mill basis.

Senator CHURCH. I understand. Earlier in your negotiations with the Idaho Power Co., did the Idaho Power Co. propose that the exchange between the Idaho Power Co. and the Bonneville Power Administration ought to be made on a 2½-to-1 basis at any time in the negotiations?

Mr. PEARL. Yes, that was in one of their proposals.

Senator CHURCH. That is to say they proposed that Bonneville Power Administration give to them 2½ kilowatts for each 1 kilowatt they supplied?

Mr. PEARL. Yes, that was discussed, of course, at length, during our negotiations.

Senator CHURCH. You rejected that proposal?

Mr. PEARL. Yes, we did.

Senator CHURCH. Have you come to any agreement with the Idaho Power Co. on the basis of your most recent proposals to them?

Mr. PEARL. No. I am of the opinion, and of course this is my opinion, that they are favorable to 1 or the other of our 2 proposals and in reality, as I mentioned before, we have only made 2 proposals to them and we made those in writing.

We have worked out other combinations which we have submitted to them for discussion but at no time did we consider those proposals because it was our plan that before we submitted anything by way of a firm proposal that we come back and discuss it with the Department.

Senator CHURCH. But as yet the Idaho Power Co. has not indicated a willingness to accept either alternative of your proposal?

Mr. PEARL. There has been no formal acceptance of either one of them.

Senator CHURCH. Suppose that the Idaho Power Co., and I wish they had a representative here to speak for them today, were to reject these proposals and that further negotiations with the Idaho Power Co. were not to prove fruitful; that is to say, you were not able to come to terms that you regarded as equitable and in the public interest, and therefore could not come to an agreement with the Idaho Power Co. In such a case, in your view, what is the next step to be taken under the existing situation?

Mr. PEARL. The next step is Idaho Power Co.'s move. It is not ours. We have submitted our proposals after a prolonged negotiation and discussion and after cooperative studies with them to determine the benefits and what you might call the division of benefits. The next move really becomes that of Idaho Power Co.

Senator CHURCH. Well, let us assume that the Idaho Power Co. simply remains adamant in its position, rejects your proposals and does nothing further. In this connection, let me refer to the language that Mr. T. E. Roach, president of the Idaho Power Co. has just used in his telegram. He says:

> As a charter member of the Northwest Power Pool group our facilities have been interconnected and our operations voluntarily coordinated with pool since 1941. Through additional 230,000 volt transmission facilities already completed or now being constructed as well as contractually committed for later date construction. Those hydro facilities now building will likewise be interconnected and operated in coordination with pool. Necessary arrangements for this coordination including interchange agreements with pool members have been concluded. Appreciate invitation—

but decline to attend.

Now, this language suggests to me the possibility at least that the Idaho Power Co. has concluded its arrangements, if I interpret it correctly, feels that it has done what it is required to do under the license and that there is no reason for them to come and discuss with this committee what further steps they contemplate taking.

If that is so, and if they do not come to an agreement with the Bonneville Power Administration and do not accept your terms and take no further steps to do so, what would you feel would be appropriate?

Mr. AANDAHL. Mr. Chairman, I might make a statement at that point.

If that is what happens, we would expect 46,000 kilowatt benefit for the Government facilities downstream and we would closely watch the operations to see whether or not that was accomplished. If it was not accomplished, then we would probably have to take some further steps. Just what they would be I would not know at the present time.

We would expect the advantage of the 46,000 kilowatts downstream.

Mr. PEARL. Mr. Morthland, did you have something to add?

Mr. MORTHLAND. I was going to suggest that I might answer to the Senator the same thing that Secretary Aandahl just stated.

Senator CHURCH. I appreciate your answer. It is direct and responsive and certainly furnishes the information that I wanted to elicit.

Do you, Dr. Pearl, have counsel for the Bonneville Power Administration with you today?

Mr. PEARL. From the Solicitor's Office, Mr. Jourolmon.

Senator CHURCH. I would be interested in your opinion of the license requirement for coordination. Assuming, as I have stated, that no agreement is reached and assuming that evidence were to develop that no hydraulic coordination is in fact being practiced which would justify, I should think, the Government's position that the terms of the license were not being complied with, could that matter then be brought by the Government back to the Federal Power Commission or would the Federal Power Commission be the appropriate tribunal in which to test that case under the existing law?

Mr. JOUROLMON. As I recall the Federal Power Act, Senator Church, it is provided that when there is a violation of the conditions of any license either the Federal Power Commission or the Secretary of the Army, in other words, the Defense Department, may make a presentment to the Attorney General of the United States and the Attorney General of the United States is then the authority which will move to have the license rescinded or revoked.

The Secretary of the Interior is not mentioned in the particular situation to which I refer.

Under normal operating arrangements between the Secretary of the Interior and the Federal Power Commission unquestionably there would be information that would be imparted to the Federal Power Commission and I take it that the Federal Power Commission would then proceed if there is a violation of the license.

Senator CHURCH. And the actual proceeding would be taken into the Federal courts, is that right?

Mr. JOUROLMON. That is right. It would have to be taken in the Federal courts.

Senator CHURCH. Can you tell me what sanctions are available in the event that the court would determine that the company had not properly complied with its license?

Mr. JOUROLMON. You are asking me to talk off the top of my head.

Senator CHURCH. I understand.

Mr. JOUROLMON. I would very much prefer to study these matters more carefully because I have not actually gone into these questions, Senator. I am satisfied that the license could be revoked. I am satisfied that any Federal Power Commission license can be revoked for failure of the licensee to abide by the various conditions which are imposed upon it. What other sanctions there are I cannot advise you.

Senator CHURCH. I appreciate your answer and I know that to answer fully requires some careful study on the point.

Mr. JOUROLMON. That is right.

Senator CHURCH. Dr. Pearl, you have received letters from our chairman, Senator Murray, and others as well, I believe, in connection with a problem that electrical co-ops in south central Idaho are facing. If I can review just briefly the problem and refresh your memory on it, our co-ops in south central Idaho have been securing power from the Bureau of Reclamation. We have four Bureau generating facilities in southern Idaho and under the preference clause of the Federal law, they have been receiving power for many years. The area has grown and the demand for power has greatly increased. These co-ops are now finding that they are faced with a very serious problem and need additional power which they find it very difficult to procure. They have been hopeful that it would prove possible for them to procure this power from Federal generating facilities under an arrangement that would integrate the Bureau facilities in southern Idaho with the Federal facilities under the Bonneville Power Administration, and I believe that you conducted some studies pursuant to these inquiries to determine what benefits might accrue in the event that integration could be arranged.

Could you summarize briefly the results of that study?

Mr. PEARL. Yes. We met with the Bureau of Reclamation. Our engineers and their engineers have made such a study and there is some power that could be made available and that is firm power the year round as a result of coordination without reducing the firm power in the Bonneville marketing area.

Mr. Mohler has made those studies. He headed our group that made the studies. He has the figures here, if you would like to have them.

Senator CHURCH. I would appreciate having them.

Mr. PEARL. You understand that after we completed working on it with Reclamation we have furnished Idaho Power with a copy of this material.

Senator CHURCH. I understand that.

Mr. Mohler, could you summarize the results of this study? I think it would be very helpful to the committee.

Mr. MOHLER. I have a prepared statement. It is very short. I will read it.

The power resources of the Bureau of Reclamation in southern Idaho have been examined for the possibility of their integration with power resources of the Bonneville Power Administration. An-

alysis of information exchanged between the two agencies indicates that the integration would provide the Bureau with an additional 13,000 kilowatts of firm energy. The additional firm energy load which the Bureau could carry would be somewhat less because of transmission losses.

Because of the relative sizes of the two systems integration is determined by examination of first the Bureau's system, which is the smaller. This determines the need for power exchanges the availability of which can be verified by examination of our system. This process is shown in part on table 1 attached to this statement.

The firm load which is shown represents requirements for pumping power on the Bureau projects plus contractual commitments to existing customers.

Additional secondary loads, represented by contracts with the two private utilities in Idaho, were also studied but were assumed on table 1 not to interfere with firm integration benefits. The 1936–37 Bureau generation is the average capability under 1936–37 streamflows of the Boise, Minidoka, and Palisades projects. This capability compared with the total load results in average surplus of 20,000 kilowatts for the year and 13,000 kilowatts for the season September 16 through April 15, which is our critical storage release season.

The 13,000-kilowatt surplus is not presently salable as firm power for 3 reasons: (1) Some other years, particularly 1934–35, have a lesser surplus; (2) the surplus is poorly distributed through the year, being too large in some months and too small in others; (2) the energy surplus is accompanied by a severe peak deficiency. Under critical local streamflows, the Bureau must purchase peaking power to meet their present commitments.

Integration with the Bonneville Power Administration would remove all three deterrents to the sale of the surplus. Availability of our secondary energy will firm up the supply in years of lesser surplus than 1936–37, such as 1934–35. Our storage is available to reshape the monthly surplus to load, and we will have a peak surplus to meet the Bureau's deficiency in peaking. This reshaping is shown by the last column on table 1 where in the last half of September (1936–37) a maximum of 26,000 average kilowatts flow from the Bureau to BPA. The net interchange for the storage release season, however, is zero, as shown.

Excess of generation over firm resource in the storage refill season is not shown as interchange under the assumption that this excess will supply the existing secondary load of the Bureau. The possibility remains to be explored of increasing these secondary sales through integration of the two systems.

The other 2 functions of integration are shown on table 2. The maximum monthly interchange of average energy from BPA to the

Bureau was found to be 41,000 kilowatts in September of 1934. This is an amount which we could easily supply from our seasonal resources. The maximum interchange of peaking power from BPA to the Bureau for firm load was found to be about 84,000 kilowatts in August 1931 and August 1933. It also is an amount which we could easily supply. This energy component of the peak exchange will be liquidated within the month. This exchange is on the assumption that Palisades powerplant will not be permitted to operate at less than 70 percent plant factor. Operation was also studied at 50 percent plant factor and also with unlimited peaking. Consideration of the fishery resource will influence the actual selection of a plant factor.

In summary, the results from integration of the two systems would be as follows:

1. The Bureau could supply an additional 13,000 kilowatts of firm energy load.
2. Increased sales by BPA could be made from the existing secondary energy supply to the Bureau during years other than 1936–37.
3. A liability which has been incurred by the Bureau for purchase of peaking power in critical hydro periods would be removed.
4. Certain energy resources of the Bureau which are presently unusable in load would be made salable through reshaping the surplus and providing peak as required.

(The tables referred to follow:)

TABLE 1.—*Integration of BPA and Bureau of Reclamation—Bureau of Reclamation loads and resources, 1936–37 streamflow, average megawatts*

Month	Firm load	Average generation	Surplus	Shaped surplus	Firm resources	Interchange from BPA
July	115	156	41	35	150	[1] 0
August	115	156	41	35	150	[1] 0
September:						
1–15	93	147	54	28	121	[1] 0
16–30	93	147	54	28	121	−26
October	50	61	11	15	65	4
November	34	42	8	11	45	3
December	36	44	8	11	47	3
January	34	45	11	11	45	0
February	36	44	8	11	47	3
March	36	44	8	11	47	3
April:						
1–15	44	61	17	13	57	−4
16–30	44	61	17	13	57	[1] 0
May	92	156	64	28	120	[1] 0
June	107	150	43	32	139	[1] 0
Annual average	66	92	26	20	86	0
Storage release season average	42	55	13	13	55	0

[1] Excess of generation not shown as interchange as it will supply existing secondary loads of the Bureau.

Source: BPA, Branch of System Operations and Power Resources, Jan. 23, 1958.

TABLE 2.—*Integration of BPA and Bureau of Reclamation—Energy and peak interchanges*

	Bureau of Reclamation load			1928–29		1929–30		1930–31		1931–32		1932–33		1933–34		1934–35		1935–36		1936–37	
	Firm resources	Secondary load	Integrated load	G[1]	I[1]	G	I	G	I	G	I	G	I	G	I	G	I	G	I	G	I
Average energy:																					
July	150	32	182	156	0	156	0	156	0	156	0	156	0	156	0	150	0	156	0	156	0
August	150	33	183	156	0	156	0	148	2	132	18	156	0	145	5	138	12	156	0	156	0
September	121	20	141	140	0	120	1	130	0	110	11	116	5	112	9	80	41	104	17	147	−6
October	65	7	72	76	−4	61	4	63	2	56	9	61	4	61	4	46	19	50	15	61	4
November	45	5	50	78	−28	42	3	76	−26	37	8	42	3	42	3	38	7	38	7	42	3
December	47	6	53	73	−20	57	−4	70	−17	39	8	44	3	44	3	40	7	40	7	44	3
January	45	9	54	58	−4	52	0	51	0	40	5	45	0	45	0	41	4	41	4	45	0
February	47	6	53	75	−22	68	−15	65	−12	40	7	44	3	44	3	40	7	40	7	44	3
March	47	0	47	69	−22	72	−25	67	−20	39	8	44	3	44	3	40	7	40	7	44	3
April	57	3	60	125	−65	143	−83	97	−37	61	−1	61	−1	81	−21	61	−1	61	−1	61	−1
May	120	21	141	156	−15	156	−15	156	−15	128	0	128	0	151	−10	128	0	156	−15	156	−15
June	139	25	164	168	−4	166	−2	150	0	122	17	163	0	131	8	150	0	150	0	150	0
Annual average	86	14	100	111	−15	104	−11	102	−10	80	8	88	2	88	1	79	9	86	4	92	0
Average Sept. 16-Apr. 15	55	6	61	80	−19	69	−11	72	−13	48	7	53	3	54	1	45	10	47	8	55	0
		Load factor percent																			
Peak																					
July	150	79.4	189	183	6	183	6	183	6	163	26	185	4	183	6	160	29	183	6	183	6
August	150	79.4	189	181	8	181	8	156	33	105	84	127	62	106	83	135	54	142	47	165	24
September	121	75.1	161	157	4	137	24	146	15	117	44	136	25	129	32	97	64	107	54	168	−7
October	65	52.8	123	122	1	101	22	103	20	93	30	101	22	101	22	79	44	85	38	101	22
November	45	59.1	76	132	−56	81	−5	129	−53	73	3	81	−5	81	−5	75	1	75	1	81	−5
December	47	61.2	77	122	−45	99	−22	118	−41	72	5	81	−4	81	−4	75	2	73	4	81	−4
January	45	57.3	78	99	−21	91	−13	89	−11	71	7	81	−3	81	−3	73	5	70	8	81	−3
February	47	60.3	78	123	−45	113	−35	111	−33	69	9	81	−3	81	−3	70	8	66	12	81	−3
March	47	60.3	78	116	−38	119	−41	113	−35	69	9	81	−3	81	−3	66	12	63	15	81	−3
April	57	41.3	138	182	−44	184	−46	137	1	80	58	90	48	119	19	83	55	89	49	90	48
May	120	69.0	174	185	−11	185	−11	182	−8	140	34	140	34	160	14	140	34	179	−5	185	−11
June	139	79.1	176	185	−9	185	−9	183	−7	140	36	185	−9	147	29	185	−9	185	−9	184	−8

[1] G—Generation by BR; I—Interchange from BPA to BR.

Assumptions: 1. BR secondary energy loads are met before exchange energy flows from BR to BPA. 2. Exchange energy is supplied by BPA to BR to meet firm loads only.

Source: Bonneville Power Administration, Branch of System Operations and Power Resources, May 6, 1958.

Senator CHURCH. Thank you, Mr. Mohler.

The results of the study did show, as your statement indicates, that the benefits that would accrue from integration would be very appreciable and that they would include among other things increasing the firm powerload of the Bureau system in Idaho by 13,000 kilowatts without reducing the firm power capacity of the Bonneville Power Administration, is that correct?

Mr. MOHLER. Yes, sir; that is correct.

I might explain a little further that 13,000 is the average over the critical storage release season of the combined systems and the Bureau could carry 20,000.

Senator CHURCH. The Bureau, subject to the conditions you just mentioned, carry as much as 20,000 additional?

Mr. MOHLER. Average energy over the year.

Senator CHURCH. Average energy over the year.

Mr. MOHLER. The relation of the 13,000 to the 20,000 is dependent upon the characteristic of the load of the Bureau. It was assumed that this additional load would have all the characteristics of the Bureau's existing load.

If they elected to sell it to customers having different characteristics, that would, of course, affect the result.

Senator CHURCH. So that the 13,000-kilowatt figure is really a minimum figure based upon the present characteristics of the Bureau load?

Mr. MOHLER. It is based on present characteristics of the load; yes, sir.

Senator CHURCH. Now, it seems to me, first of all, that there is a public interest here, a very real public interest. This is a hydroelectric power system both in Idaho and in Oregon. Clearly there is a public interest in utilizing the public water in the public rivers as efficiently as possible to maximize the production of electricity. Integration is important for the reason that it does, among other things, maximize the production of electricity and makes for the most efficient use of the waters of the river.

Up until now, we have had no integration between the Government facilities under the Bureau of Reclamation in Idaho and the Government facilities under the Bonneville Power Administration in Oregon and Washington.

This study shows that if we had that interchange or integration between the two systems that the Bureau system in Idaho would have at least 13,000 additional kilowatts of firm power without the expenditure of public money to create new facilities and this 13,000 kilowatts, I am told, would solve the problem that is presently faced by the co-ops in need of power in southern Idaho. The law also requires that these co-ops be given firm power if it is available for the law stipulates that they are preference customers.

Therefore, it seems to me that it is clearly in the public interest and also in accordance with the law that we make every effort to integrate these systems in order that we might realize this windfall of 13,000 additional kilowatts of power.

Now, Dr. Pearl, did you inquire in your negotiations with the Idaho Power Co. as to whether or not they would discuss with you a wheeling arrangement whereby this integration between the Bu-

reau's facilities in Idaho and the BPA's facilities in Oregon and Washington be achieved?

Mr. PEARL. Yes, we did.

Senator CHURCH. Did they agree to discuss that matter?

Mr. PEARL. They did.

Senator CHURCH. Did they discuss it?

Mr. PEARL. It was at that time, of course, that we elected to make the study of what the benefits would be. The results of this study we have provided to the Bureau of Reclamation. Of course, in turn then they will discuss this.

I do not believe they have discussed it yet but they will discuss this with Idaho Power Co. In other words, there would be an agreement between Bonneville and Reclamation and then the contracting would have to be between Reclamation and Idaho Power.

Senator CHURCH. This is because integration can be achieved only through use of the Idaho Power transmission lines which connect the two systems, is that right?

Mr. PEARL. That is correct, yes.

Senator CHURCH. So that if integration is to be achieved it will have to be done with the cooperation of the Idaho Power Co. and under terms of an agreement with the Idaho Power Co., is that correct?

Mr. PEARL. Yes, that is right. There is only 1 of 2 ways. Either the Federal people would have to put in a line to integrate or we would have to wheel over the facilities of Idaho Power.

Senator CHURCH. In negotiations, did the Idaho Power Co. indicate any reluctance to discuss this matter? Are they willing to discuss it or have you reason to believe that there will be difficulties in making such arrangement?

I am looking toward the possibility of getting this problem solved.

Mr. PEARL. Insofar as the wheeling to accomplish this coordination they did not show any reluctance. They said that they would be glad to discuss that with Reclamation when we had the figures available.

Senator CHURCH. I see. Do you presently have the figures available and have you supplied them to the Bureau?

Mr. PEARL. We have.

Senator CHURCH. Do you know whether the Bureau has taken up negotiations with the Idaho Power Co.?

Mr. PEARL. I do not believe they have as yet. I am not positive. I am rather sure they have not.

Mr. AANDAHL. I might say, Senator, that the Bureau of Reclamation is in the process of proceeding with those negotiations. They have not had the conference with the Idaho Power Co. yet but are in the process of moving forward.

Senator CHURCH. Thank you, Mr. Secretary.

Dr. Pearl, in your system, do you do a good deal of wheeling for other power companies using your power transmission lines to do so?

Mr. PEARL. Yes, we do.

Senator CHURCH. Do you have someone with you here who might explain to the committee, if it involves technicalities that you would prefer to have some engineer discuss, what is really involved in a wheeling arrangement; that is to say, what the burden is to Bonneville Power Administration, what the burden is on the line, what the

cost of wheeling may be, and basically what these agreements entail, what the charges for the wheeling are?

Mr. PEARL. Every one of my staff here is familiar with all the details of wheeling because we do spend considerable time on that.

I would like to ask Mr. Goldhammer to answer your question. He actually prepares these contracts for wheeling.

Senator CHURCH. Mr. Goldhammer.

Mr. GOLDHAMMER. Yes, Senator. We wheel power for other utilities on 2 bases: 1, a firm wheeling basis; and, secondly, an excess capacity wheeling basis. The firm wheeling basis is generally made with a utility on the basis of the term coincident with the license. For example, in the case of Priest Rapids, we are making agreements that expire at the expiration of the Priest Rapids license. Those agreements provide that the Government will wheel and assures wheeling for this term of years.

Senator CHURCH. What do you charge for firm power wheeling?

Mr. GOLDHAMMER. The charges are based on an analysis that has been made of our average costs and the charges will vary according to facilities that are used.

On our main transmission grid we take the airline distance between the generating plant and the load center. We add 15 percent for the turns in the lines, and so forth, and charge on the basis, if this is a main grid item, of 1 cent a mile per kilowatt-year.

Senator CHURCH. Can you translate that for me into mills per kilowatt or something of that kind?

Mr. GOLDHAMMER. Let us assume that the distance from generating plant to the load center is 200 miles. We would then add 15 percent to the distance and we get 230 miles. We would then charge 1 cent per mile per kilowatt which would be $2.30 per kilowatt-year.

Now, we are getting into some complications of load factor here. That is per year. Let us assume that it is a 100 percent load factor. Then you divide the $2.30 by 8,760 hours and come out with something less than three-tenths of a mill per kilowatt-hour for the line.

Then you would have the transformation. This would depend upon whether the utility took delivery at 230,000 volts or 12,500 volts. The transformation charge would vary. It also would vary depending on whether the delivery point came off the main grid or off the secondary system. The charges on our 115-kilovolt system come to 2.8 cents a miles approximately instead of 1 cent a mile, so that it would be difficult, without a specific case, to say just what our wheeling costs would be.

Senator CHURCH. These procedures that you follow are comparable, I take it, to procedures followed within the industry generally where wheeling is concerned; is that so?

Mr. GOLDHAMMER. Not necessarily on our firm wheeling.

When we made the studies of firm wheeling, we came upon a rather unique situation. Most of these wheeling contracts are reversal of flow. For example, we talk about wheeling power from Priest Rapids to Portland. We know that the power does not flow from Priest Rapids to Portland. The power is going to flow from Priest Rapids to the Puget Sound area, and we will replace that power from power flowing from The Dalles, but we charge our wheeling from Priest Rapids to Portland because the wheeling charges are based on average

costs for the system as a whole, not for any particular segment of the line.

The firm wheeling is done either through the appropriation process, where we have asked for permission to go ahead on wheeling or done with public agencies under section 280 of the Bonneville Act.

The excess capacity wheeling is on an entirely different basis. We have lines where the Government has excess capacities for 1 or 2 reasons: either we are building the most economical lines to build, taking into account future load growth, which means for a term of years we may have excess capacity, or it may mean that certain lines become unloaded.

In the past months of our excess capacity contracts have not been on the grid. They have been on feeder lines.

We are now in the process of analyzing what our charges on excess capacity wheeling should be if we get on to the grid itself.

In the past dealing principally with feeder lines, we have taken the ratio of the capacity that was used to our total cost, and each cost was related to the particular segment of the line that was used, because in these cases we could trace down an excess capacity where we were not dealing with the grid. We could trace down particular facilties that were used whereas if we get to the system problem as a whole you cannot trace down the system facilities used to bring the power from generating station A to load center B.

Senator CHURCH. Thank you. I know it was a complicated question and a complicated answer, some of which I followed.

Getting back now to the question of wheeling itself, Dr. Pearl, in this Northwest power pool, the Idaho Power system is a part of the Northwest power pool; is it not?

Mr. PEARL. That is right.

Senator CHURCH. This involves exchanges of power between the Idaho Power system and Bonneville Power Administration as well as other exchanges of power?

Mr. PEARL. I think that is a good point to make.

One of the essential things in the operation of the pool is this exchange of power and what we call wheeling. That is the transmitting of power by other than the actual owner of the power. The item that Mr. Goldhammer did not put in is that we not only wheel for others but others wheel for us. Ours is all done in accordance with a formula that we have worked up of our costs.

Senator CHURCH. Did you enter into a contract in 1955 with the Idaho Power Co. involving exchanges of power?

Mr. PEARL. Yes, we did.

Senator CHURCH. Did that contract include any wheeling arrangement that might have entitled you to wheel power on their system down into Idaho?

Mr. PEARL. No, it did not.

Senator CHURCH. Was that ever considered at the time, in part or negotiated for?

Mr. PEARL. This was a power exchange and subject to cancellation and was for only part of the year. They put in all the facilities necessary to take the power from our system and so it did not lend itself readily to any such an agreement as that. In other words, this is a power exchange on an as, if, and when available basis.

Senator CHURCH. Returning to integration of the two systems to maximize the power production and to make additional kilowatts available on the existing system in Idaho, would you be agreeable to an arrangement based upon your studies that would integrate the operation of the bureau system and the Bonneville Power Authority system assuming that the necessary arrangements for wheeling could be made with the Idaho Power Co.?

Mr. PEARL. Yes; we would be.

Senator CHURCH. You feel as I do, that such an agreement would be in the public interest and, also, in accord with the comprehensive development of our hydroelectric system on these rivers?

Mr. PEARL. Yes. In answering these questions, you know, they are rather brief and it is not perhaps possible for us to cover all the detail. You understand that in making such an exchange between the Bureau and Bonneville, there are times when there will be terrific loads having to flow over the lines. In other words, there is actually a peak of something like 86,000 kilowatts of power that would have to flow for a relatively short period of time to accomplish this integration of the two. Of course, the thing that Idaho Power will have to make a study of is: Can their facilities handle that? That is one item that Mr. Mohler did not mention, but is a factor. In other words, as we go on with the questions, more of these things come to my mind that are problems in trying to make these determinations.

These are not as simple as sitting down and making a few calculations.

Senator CHURCH. I can appreciate that. There are many problems. We are trying to get at here the general agreements and general attitudes that prevail as well as the requirements that may be involved legally here to achieve proper coordination under the terms of the license.

Thank you very much for your answers, gentlemen, I appreciate your cooperation, and I think that the answers have been very helpful.

I have no further questions, Mr. Chairman.

The CHAIRMAN. Senator Neuberger, do you have some questions?

Senator NEUBERGER. I have a few questions, Mr. Chairman. Thank you very much.

Dr. Pearl, I followed with interest the discussion between yourself and your staff and Senator Church.

It has been very helpful and very informative.

There are a number of things that I would like to establish for the record, because I am not totally clear on them. That is the status and the legal entity or lack of legal entity of the Northwest Power Pool. Much of the basis of your discussion with Senator Church has involved the terms in the Brownlee Idaho Power Co. license that pertained to coordination with the Northwest Power Pool, is that not correct?

Mr. PEARL. That is correct.

Senator NEUBERGER. Can you explain exactly what is the Northwest Power Pool?

Mr. PEARL. The Northwest Power Pool is a voluntary agreement between all of the generating agencies in the Northwest by which we accomplish a substantial increase in firm power as a result of this coordination. It does not have any legal status. It is a voluntary agreement between all of those in the Northwest who have generation.

Senator NEUBERGER. In other words, then, the Northwest Power Pool and the Bonneville Power Administration are definitely not one and the same thing?

Mr. PEARL. In no way. We are a member of the Northwest Power Pool.

Senator NEUBERGER. What percent of the energy in the Northwest Power Pool is supplied by the Bonneville Power Administration?

Mr. PEARL. It would be something over half.

Mr. GOLDHAMMER. Around half.

Senator NEUBERGER. What is the next principal supplier of energy in the Northwest power pool?

Mr. PEARL. That is Seattle, I imagine. That is information we could get for you very easily.

Senator NEUBERGER. I think it would be useful if you could supply the contributions to the Northwest Power Pool by all of the members.

Mr. PEARL. That information is not hard to get.

(Mr. Pearl subsequently submitted the following tabulation:)

Generation of the Pacific Northwest Power Pool utilities, fiscal year 1957

Utilities	Kilowatt-hours	Of total generation
	Billions	*Percent*
Publicly owned:		
Bonneville Power Administration	30.0	60.2
Seattle City Light	2.6	5.3
Tacoma City Light	.9	1.8
Total publicly owned	33.5	67.3
Privately owned:		
British Columbia Electric	2.8	5.6
Montana Power Co	3.5	7.1
Idaho Power Co	2.4	4.8
Utah Power Co	2.6	5.2
Washington Water Power Co	2.0	4.0
Pacific Power & Light Co	1.4	2.8
Puget Sound Power & Light Co	.9	1.8
Portland General Electric Co	.7	1.4
Total privately owned	16.3	32.7
Total generation	49.8	100.0

Senator NEUBERGER. Who actually, physically operates and manages the Northwest Power Pool?

Mr. PEARL. There is a committee set up and each one of the group that has generation has a member on this committee.

Senator NEUBERGER. In other words, each entity that contributes has a member on the committee that manages the Northwest Power Pool?

Mr. PEARL. That is right.

Senator NEUBERGER. Who physically manages it? Where is it physically managed from? Is there any central point where contributions are measured and assayed and exactions from the pool are likewise measured? Is there any one physical headquarters of the Northwest Power Pool?

Mr. PEARL. There is, of course, a man who is the chairman of this group and at regular intervals all of these people get on the phone together as a group and discuss their plans for, I think, about a week at a time.

Mr. GOLDHAMMER. It is usually a week at a time. I might say that the Northwest Power Pool is managed by the technicians in the power systems and not the managers in the power systems. It is the power operations people who manage it, the dispatchers.

Our operations people coordinate for the benefit of securing the maximum power in the Northwest as a whole. Management does not come into the discussions as to how you are going to operate from one week to the next or from day to day.

Senator NEUBERGER. I want to ask this further question. Is there any one office, headquarters, building, or any facility whatsoever that says on the door, window, neon sign, letterhead, or anything else, "Northwest power pool"?

One of the reasons I am trying to establish this record is this, Mr. Chairman: Many people in the Northwest confuse the Northwest Power Pool with the Bonneville Power Administration. A great many people in the Northwest and interested people elsewhere in the country regard it as a Government agency.

Now, I am trying to get at just whether there is any entity or not. In other words, there is no headquarters of the Northwest Power Pool?

Mr. GOLDHAMMER. No, sir.

Senator NEUBERGER. If I wanted to become a member of the Northwest power pool and I was the manager of a generating system or built a Delco plant in the Northwest, to whom would I go?

Mr. PEARL. You would send your man to meet with this committee, and I believe that is all the formality that would be required.

Senator NEUBERGER. In other words, it is a purely informal voluntary organization without an incorporated status and without a legal status under law.

Let me find out this further thing. Does the Bonneville Power Administration get out of the Northwest Power Pool exactly as much energy as the Bonneville Power Administration puts into the Northwest Power Pool?

Mr. PEARL. Yes; they definitely do.

Senator NEUBERGER. In other words, there is no arrangement under which the Bonneville Power Administration gets a smaller bowl out of the pot than it contributes to the pot?

Mr. PEARL. We get a larger bowl by reason of firm power to sell.

Senator NEUBERGER. Who gets the smaller bowl?

Mr. PEARL. Everyone in the pool derives the benefit. If we were to split up the pool and each one operated its own system alone and compare that, the pool estimates vary, but let us say there are 700,000 kilowatts which accrue as a result of this voluntary coordination and everyone in the pool derives a benefit from it, and there is no one in the pool that loses a kilowatt as a result of it.

Senator NEUBERGER. This is a further matter, then, that puzzles me about it. I am glad to learn this and I can see, of course, how there is a certain advantage in coordinating systems because rivers in the Northwest peak at different times. The temperature varies, there are different snow packs in mountain ranges and different precipitation. I understand that. But this puzzles me. The license says that the Idaho Power Co. shall coordinate with the Northwest power pool. I will not go into specific details. But that is what it says. Why is the Idaho Power Co. negotiating with Bonneville?

Mr. PEARL. They are negotiating with the Northwest Power Pool.

Senator NEUBERGER. How are they negotiating?

Mr. PEARL. They are also working with Washington Water Power, Pacific, and the others in the pool to attempt to bring about a coordination as required by their license.

Senator NEUBERGER. This is what puzzles me. The Northwest Power Pool is not a legal entity. It does not have an office, a letterhead, or sign. With whom is Idaho Power Co. negotiating so that it can coordinate with the Northwest Power Pool? It was said tentatively that Seattle City Light is the second largest contributor to the pool after BPA. That is a curbstone opinion and I do not expect you to have every figure at your fingertip. Is that correct?

Mr. PEARL. Yes.

Senator NEUBERGER. Is Idaho Power Co. negotiating with Seattle City Light?

Mr. PEARL. No; there is no connection between the two as far as coordination is concerned.

Senator NEUBERGER. Why are they negotiating only with Bonneville when Bonneville is only one contributor to this rather nebulous unincorporated organization? You see, the license did not say that Idaho Power Co. shall coordinate with BPA, is that not correct, Dr. Pearl?

Mr. PEARL. That is correct.

Senator NEUBERGER. The license said that Idaho Power Co. shall coordinate with the Northwest Power Pool. That is correct, is it not, Mr. Secretary?

Mr. AANDAHL. Yes, sir.

Senator NEUBERGER. Now, what I am trying to figure out is this: The question occurs to me from reading the original Idaho Power Co. request as to what they expected to withdraw from the Northwest Power Pool, and which I think you have properly rejected, why did they go to BPA with that? Why did they not go to whatever entity speaks for the Northwest Power Pool because that is what the license says?

Mr. AANDAHL. Senator, I believe I can offer a layman's opinion there that might be helpful.

Idaho Power Co. from its own studies and from the exchange of studies that it has made with the Bonneville Power Administration is aware of the way in which it will need to operate its powerplant and retain storage in its reservoir to make a maximum contribution to the Northwest Power Pool.

Now, the thing that the Idaho Power Co. needs to set up contractually is a source of power during the summer season that it can use while it is storing water in its reservoir, and it can make that contract with the Bonneville Power Administration or with some other source of power. When it has done that so that it is able to retain the storage in its reservoir as directed by the pool operation decisions, then it will be fully coordinated hydraulically with the Northwest Power Pool.

Senator NEUBERGER. I follow you there, Mr. Secretary, but again this is what perplexes me.

On page 64 of the Columbia Basin Problems Committee Print are certain rival proposals made by Idaho Power Co. and by Bonneville

Power Administration as to such benefits as Idaho Power Co. shall get from the Northwest power pool. Now, it seems to me from reading these proposals, although I am not a technician or engineer, that if the Idaho Power Co. recommendations were to be accepted Idaho Power Co. would withdraw from the Northwest Power Pool more than they would contribute and, as I said, I think very properly BPA has rejected some or all or a substantial portion of their proposals.

If the proposals were to be accepted, would not Idaho Power Co. obtain benefits not only at the expense of BPA but of all other contributors to the Northwest Power Pool?

Mr. GOLDHAMMER. Can I attempt to answer that, Senator? I think the large problem here is that you are getting into the question of what should the load current capability of the various systems be. Now, the proposals that Idaho Power Co. have made to Bonneville would not affect the total load carrying capability of the power pool as a whole. In other words, with the various proposals they have made the same amount of firm power would prevail in the areas compared with the proposals, for example, that Bonneville has recently made.

The question that is involved is what will be the load current capability of the Idaho system as compared to the capability of the other systems.

This is achieved by various methods. For example, if we take the two proposals we made to Idaho, one on a 1-for-1 exchange where they returned wintertime power for summertime power, that has a lower load-carrying capability for Bonneville and a higher load-carrying capability for Idaho than the second proposal we made, which would permit them to purchase the power during the summer months because, by purchasing the power during the summer months, they take in more kilowatt hours into the system and therefore their load-carrying capability becomes higher.

Senator NEUBERGER. Let me ask you this. The license says coordination with the Northwest Power Pool. Page 64, however, is BPA credit to Idaho Power, Bonneville Power Administration vis-a-vis Idaho Power all through this.

Mr. GOLDHAMMER. That is right.

Senator NEUBERGER. Why if the license said coordination with Northwest power pool are all these negotiations and credits and references between BPA and Idaho Power rather than between Northwest power pool and Idaho Power?

Mr. PEARL. They are negotiating with Washington Water Power, with Pacific Power & Light, and with Utah Power.

Senator NEUBERGER. Is Utah Power in the Northwest Power Pool?

Mr. PEARL. Yes. What you have referred to here is the negotiations between Bonneville and Idaho Power Co. Now, if you had their negotiations with one of the other companies you would have a different set of figures.

Senator NEUBERGER. But they are not negotiating evidently with Seattle City Light, the second largest contributor to the pool.

Mr. GOLDHAMMER. They would have to negotiate with some system or group of systems which have large amounts of summer power. One of the reasons they have been negotiating with Bonneville is the fact that Bonneville does have the large amount of summer secondary

energy to fill the reservoir. If they made an agreement with Bonneville they would not have to make an agreement with any other utility. It is our opinion, and they have been working on this matter of taking a combination, that there is no other single member of the Northwest Power Pool that will be able to provide all the secondary power that Idaho requires during the summer months other than the Government system.

I do not know whether it is possible or not but it is conceivable that they could get the summertime secondary they need by making agreements with Washington Water Power, Pacific Power & Light, and maybe Portland General Electric, and Utah Power & Light Co. They would have to take some combination to get the summertime energy they need, whereas if they make a contract with Bonneville they can get all the summertime energy they need.

Senator NEUBERGER. If this agreement, as proposed by the Idaho Power Co. went through, would their benefit be predominantly at the expense of Bonneville or of the Northwest Power Pool?

Mr. GOLDHAMMER. They would not be at anybody's particular expense because there would be a greater load-carrying capability in the area. Bonneville would get part of this load-carrying capability and Idaho would get part. If they made an agreement with some of the other utilities, for example, let us say Pacific Power & Light and Washington Water Power, the load-carrying capability of the area would still be increased but Washington Water Power and Pacific would be able to dispose of some secondary energy that is not now usable or in the future would be usable just as Bonneville at the present time has large amounts of summertime secondary that is not usable. It flows to the sea.

Senator NEUBERGER. Let me go back to the Northwest Power Pool to try to understand this a little. The policies for the Northwest Power Pool are set by this committee to which you refer?

Mr. GOLDHAMMER. Correct. It is a coordinating committee purely voluntary.

Senator NEUBERGER. The pool is physically run by the dispatchers of each system?

Mr. GOLDHAMMER. Coordinating people. They may be dispatchers or power operations officers.

Senator NEUBERGER. There are no particular people from any one system who have a greater preoccupation in their duties with the Northwest Power Pool than from any other system?

Mr. GOLDHAMMER. No, sir.

Senator NEUBERGER. The Northwest Power Pool is, in other words, operated jointly by all the systems that contribute?

Mr. GOLDHAMMER. Let me explain that further.

We mentioned previously that it was a voluntary organization. No member has to follow the dictates of the coordinated operation. They generally do as a matter of advantage to the group as a whole because, generally speaking, an individual advantage is the same as the group advantage, but if one group decides to operate in a specific way and determines that the best operation should be this operation, the other group does not have to follow.

There is no requirement that anybody follow the rule curves or anything else of the group as a whole. It is purely voluntary and each

week somebody could decide to depart from the overall plan of operations. It is not compulsory.

Senator NEUBERGER. I understand that. Again I want to get to the one question about article 39 of the Idaho Power Co.'s license. It provides that the coordination shall be with the Northwest Power Pool. Now the negotiations referred to on page 64, the Idaho Power Co. proposals and BPA's counterproposals referred, however, only to energy of the Federal system.

Mr. GOLDHAMMER. That is correct.

Mr. PEARL. That is correct.

Senator NEUBERGER. You say they have similar negotiations underway with other members of the power pool?

Mr. PEARL. They did have.

Senator NEUBERGER. I think that is a very important factor, Mr. Chairman, for us to establish because if we are going to explore what the Idaho Power Co. is seeking under the terms of its license or in violation or expansion of its license under article 39 of the license, we certainly should know whether or not these negotiations apply only to the Federal contributions to the Northwest Power Pool or to all the contributions to the Northwest Power Pool. I think that that is a very key question here.

As I gather, if I am not mistaken just from reading here, the Bonneville Power Administration does not go along with all the proposals made by Idaho Power Co. Is that correct?

Mr. PEARL. That is right.

Senator NEUBERGER. The thing that I think we ought to know is: Has Idaho Power Co. made similar or identical proposals to the other participants in the Northwest Power Pool or are they going to get the croutons for their soup just out of the Federal contribution to the Northwest Power Pool?

I may not be a very smart fellow but that is just what I do not understand.

Mr. GOLDHAMMER. Let me add one thing that might help. It is, incidentally, in Dr. Pearl's statement.

We have had no quarrel with Idaho Power Co. as to the operations. We have discussed right along operations in a coordinated manner. Where the Government is mentioned, we get these downstream benefits where you operate and it is in Idaho Power Co.'s proposals that they made. You would operate in a coordinated manner to get the maximum benefit to the area.

What is contained primarily in the documents that have been presented is: How are the benefits to be divided, upon agreeing to this coordinated operation?

There are two fundamental problems that we have been discussing right along with Idaho Power Co. One is, if we sell them the summertime power, what are we going to charge for it? What should the rate be?

Secondly, shall we exchange the power and, if we exchange from the summer to wintertime power that is necessary, what should the exchange ratio be?

That has been the fundamental question and difference between Bonneville and Idaho. It has not been the method of operation. On that we pretty much agree.

Senator NEUBERGER. I understand that, but still the BPA, as I gather, cannot speak for the Northwest Power Pool.

Mr. GOLDHAMMER. That is correct.

Senator NEUBERGER. Does the Idaho Power Co., in order to carry out the terms of provision 39, have to reach an agreement with all members of the Northwest Power Pool?

Mr. GOLDHAMMER. No.

Senator NEUBERGER. How do they comply?

Mr. MORTHLAND. May I answer that?

The CHAIRMAN. Yes.

Mr. MORTHLAND. I think they comply when they achieve an operating agreement with one or more members of the pool which results in a creation of a maximum load carrying capacity for the region as a whole. It does not matter kilowattwise with whom they reach this operating agreement or with whom they carry it out. It means a difference in dollars to one or the other of the pool members as to whom they get their summertime power from which enables them to effect the coordination.

I think the distinction is between the results in power resources for the region through coordinated operation as opposed to isolated operation. If they would operate in an isolated fashion the region would not lose power. However, if they operate in a coordinated fashion, the region gains substantially.

Senator NEUBERGER. As I gather from Mr. Goldhammer's reply, a great deal of the controversy settles down to the cost of the kilowatts that Idaho Power contributes to the pool and the cost of the kilowatts that it draws out of the pool.

Mr. MORTHLAND. That is right.

Senator NEUBERGER. In other words, whether it is going to get back kilowatts of a lesser cost in terms of generating economics than of those it contributes. Is that right?

Mr. MORTHLAND. I presume if Idaho Power could do nothing to secure an operating agreement with other members of the pool under which it would pay a lower price for the power it needs to fill its reservoirs than Bonneville Power Administration can sell it for under its established rates it might do so.

Senator NEUBERGER. And the cheapest kilowatts put into the pool are the BPA kilowatts. Is that correct or incorrect?

Mr. MORTHLAND. I do not know whether that question can be answered in that fashion.

Senator NEUBERGER. Supposing I am a big sawmill operator on the upper Columbia Basin. Can I make 14-mill power with sawdust, as I have seen done in the Yukon, and put it in the Bonneville and get back 2-mill power to deliver to people?

Mr. PEARL. No.

Senator NEUBERGER. I cannot do that. I did not think I could. Can Idaho Power Co. put in 4-mill power and get back 1-mill power?

Mr. MORTHLAND. No.

Senator NEUBERGER. They cannot do that. They can only get back power value at exactly the value that they put in the pool; is that right?

Mr. MORTHLAND. Under our proposal.

Senator NEUBERGER. Under your proposal.

Mr. MORTHLAND. Yes, sir.

Senator NEUBERGER. But they are seeking a moderate variation of what I have hypothetically suggested might be possible. They want, as I gather, to put into the pool more expensive kilowatts and to withdraw from the pool cheaper kilowatts.

Mr. MORTHLAND. Initially their proposals were that way, yes. We have had no reply to our recent proposal.

Senator NEUBERGER. I know that. As I said earlier to Dr. Pearl, I think you properly rejected that proposal.

The further thing that I want to get at is this: Let us say hypothetically that you had accepted that proposal, which I trust Bonneville will not do; let us say that you had.

Who, except the Federal Government, would put into the pool those cheaper kilowatts that Idaho Power would get in return for their more expensive kilowatts? I want to know who would make a contribution. Suppose that proposal had been accepted. Who would provide those cheaper kilowatts for Idaho Power?

Mr. GOLDHAMMER. If the Idaho proposal were accepted the Bonneville would provide those.

Senator NEUBERGER. That is the $64 answer.

Mr. GOLDHAMMER. There is another problem, a very significant problem. That is, we are not dealing with the summertime energy. We are not dealing with prime power but with secondary power. As a result of the construction of a number of plants like Priest Rapids, Rocky Reach, and later probably Wanapum, the utilities in the Northwest Power Pool are going to have large amounts of surplus secondary power and if they cannot find a market for that power that is going to be wasted. They will look for a market at whatever price they can sell it.

Some of them have already told us that if they can get anything below our price, a mill or mill and a half a kilowatt-hour, they are going to have to take it. They are not going to be able to compete with the Government price of 2½ mills a kilowatt-hour because people will continue to buy power from the Government at 2½ mills. We also have it.

There is going to be some price competition and deals are undoubtedly going to be made on the secondary power regardless of the cost of the total output of these dams which may be 3 or 4 mills and, in some cases, higher.

The secondary is something they cannot use under their local curves and they have to find a market where someone can use it or it is going to be wasted.

There is a potential that Idaho Power Co. may be able to buy some secondary power from some of their systems at a lower rate than we can provide under our existing schedule.

Senator CHURCH. Would the Senator yield?

Senator NEUBERGER. Certainly.

Senator CHURCH. I think this discussion points up 2 or 3 factors that ought to be focused upon.

One factor which I think the discussion this morning has pointed up is that to achieve coordination in the sense of the license we must have hydraulic coordination so that the Government plants downstream can have the benefit of the 40,000 or 45,000 additional kilo-

watts. The Bonneville Power Authority and Department of the Interior seem to be in accord in their view and would regard nothing less as meeting the requirements of the license.

Secondly, I think that insofar as electrical coordination within the Northwest Power Pool is concerned that that coordination could be achieved with any member of the pool so long as the regional interests are augmented to the maximum, but that if it were actually realized by an agreement between the Idaho Power Co. and the Bonneville Power Authority that the Bonneville Power Authority could, depending upon the terms of the agreement, derive great benefits from such an agreement as well as the Idaho Power Co. deriving its needs, and that one of those benefits would be that the Bonneville Power Authority might sell at 2.5 mills excess power that is now going wasting to the sea; therefore, depending upon the terms of the agreement, I do not think that an agreement between the Bonneville Power Authority and the Idaho Power Co. need be regarded as an agreement whereby the Government contributes something more than the Idaho Power Co. contributes. I think it could be of great benefit to the Government as well as to the Idaho Power Co. and to the need of the entire area.

I do feel, however, that this depends upon the terms of the agreement and that, therefore, it is very much in the public interest, and I do hope that the Department of the Interior and the Bonneville Power Authority will cooperate with this committee of the Senate in making public, fully public, full and complete disclosures in advance of the proposals as they are made and, before any final arrangement is entered into or any binding contract is made, give this committee and the public the benefit of knowing what those terms are.

I think in that way that the public interest is always best protected.

That is the only comment I would like to make.

I would like to ask you, gentlemen, Dr. Pearl and Mr. Secretary, if you would be inclined to proceed in that way so that the facts relating to any agreement are made public before a binding contract is entered into?

Mr. PEARL. We at Bonneville have adopted that as a policy in all of our negotiations with everyone. In other words, we make them public and solicit comments.

Senator CHURCH. I think that is a highly commendable procedure and very much in accord with the public interest.

Mr. WEINBERG. Senator Church, may I comment that on page 2 and 3 of the committee print is a letter from the Assistant Secretary of the Interior, dated November 6, 1957, giving the committee that assurance.

I call your attention particularly to the last two paragraphs of that letter.

Senator CHURCH. Yes. Thank you. I have seen the letter and know that the committee is happy to have that assurance because this is a matter that is of great importance to all the people in the Northwest.

Senator NEUBERGER. I certainly think Senator Church's comments are very pertinent.

Dr. Pearl, for further background, are there any other private company projects upstream in the Northwest that add to Bonneville's generating capacity at various times of the year?

Mr. PEARL. You are referring to storage, because practically all of the projects other than the Government projects are run of the river, nonstorage. Montana is an example.

Senator NEUBERGER. I was wondering about Montana Power Co. and wanted to establish for the record if there were any other private companies that had undertakings that did augment Bonneville's capacity.

Mr. GOLDHAMMER. Coeur d'Alene does.

Mr. MOHLER. Montana Power Co.; Kootenay Lake in Canada operated by a Canadian company; and Coeur d'Alene Lake operated by Washington Water Co.; and Lake Chelan contribute small benefits.

Senator NEUBERGER. They do contribute benefits. Have they sought any arrangement from Bonneville in any way parallel to these Idaho Power Co. proposals on page 64 of the committee print?

Mr. MOHLER. Montana Power Co. suggested that we examine the coordination agreement.

Senator NEUBERGER. Have they made any specific proposals similar to these?

Mr. MOHLER. No, sir; none at all.

Mr. PEARL. I would like to comment on that. As more projects come into the Northwest this problem that we call integration will become more complex and we are spending considerable time on trying to set up policies that we can reply to all of the projects that are now in or coming in. This is really the first one where we actually have had any direct negotiations for a firm contract for a period of time.

With Montana we enter into an agreement annually and the same with all the others, but this is our first one that you can really consider an overall integration or coordination, whichever you like to call it, on a contract basis for a period of time.

Senator NEUBERGER. Thank you, Dr. Pearl, very much.

The CHAIRMAN. What is the desire of the committee? Shall we continue for a short period or take a recess until tomorrow or this afternoon at 2 o'clock?

Senator CHURCH. Mr. Chairman, Mr. Mapes here indicates that he has about 15 minutes' worth of questioning.

If it would not discommode these gentlemen, we might finish with the Bonneville Power Authority this morning and go on with the hearings this afternoon. It would not be so taxing on our time.

Mr. MAPES. I do not know that my questions will take 15 minutes, Mr. Chairman, but I do want to spell out in the record a couple of the legal questions involved here.

Section 10 of the Federal Power Act reads:

> All licenses issued under this part shall be on the following conditions: Subsection (g). Such other conditions not inconsistent with the provisions of this act as the Commission may require.

Is it the position of Bonneville Power Administration, Dr. Pearl, that article 39 is one of the conditions of the license under section 10 (g)?

Mr. PEARL. That is a legal question. I would like to turn that over to Mr. Jourolmon.

Mr. JOUROLMON. Mr. Mapes, yes, that is our position. We regard paragraph 39 as one of an entire series of paragraphs which set up various conditions which are obligatory upon the Idaho Power Co. They relate to such things, for instance, as the Smithsonian Institution and its right to the Indian relics that may be found there and the rights of the Army to flood control and to navigation and the rights of the fishing interests.

That series begins about section 30 and runs up to about section 44.

Mr. MAPES. In accepting the license, the company accepts these specific conditions?

Mr. JOUROLMON. Yes. When the Commission issued its license there was attached to it a specific form for acceptance to be signed by the company and, as I understand it, the company did sign and submit to the Federal Power Commission a formal acceptance of its license.

Mr. MAPES. Then if those conditions are part of the license, is it the position of the Bonneville Power Administration that the Idaho Power Co. can, in addition, be paid for compliance with those conditions?

Mr. JOUROLMON. It very definitely is not. All of the attorneys that have discussed this matter in the Department of the Interior and the Solicitor's Office from the Solicitor on down to the field solicitors are, I think, uniform in their view that these are benefits to which the United States is entitled by reason of the fact that the Federal Power Commission has incorporated these conditions in the license.

Mr. MAPES. You say the United States. By that do you mean the Northwest Power Pool or the Bonneville Power Administration?

Mr. JOUROLMON. I was referring to the attorneys for the Department of the Interior. Actually, as you know, the Bonneville Power Administration does not have separate attorneys at the present time. The Solicitor's Office of the Department of the Interior supplies the legal advice to Bonneville Power Administration.

Mr. MAPES. I understand that, Mr. Jourolmon. The question I had was that the coordination required is with the Northwest Power Pool. This will result in certain benefits, increased availability of power to the region, and then it is the position of the Solicitor's Office that those benefits do accrue to the United States which, in this case, means the Bonneville Power Administration?

Mr. JOUROLMON. That is right. The downstream benefits of integration will accrue to the United States.

Mr. MAPES. Now we are getting to a separate subheading into which I wanted to go. There are both hydraulic and electrical coordination benefits under article 39; is that correct?

Mr. JOUROLMON. Well, here you are getting into an engineering question on which I do not regard myself as an authority.

Mr. MAPES. You may refer to Mr. Goldhammer.

Mr. JOUROLMON. There are probably incidental benefits from the management of the Northwest Power Pool. These are benefits of cooperation between the various operating utilities in the area and they may be of either a hydraulic nature or an electrical nature. The more easily identifiable benefits to which we refer in the Government as those that the Government will unquestionably get are the hydraulic

benefits. That results simply as a matter of geography because of the fact that on this particular river there are downstream plants which belong to the Government.

Senator NEUBERGER. And under section 10 (f) of the Federal Power Act, the Government receives those.

Mr. JOUROLMON. It will receive those. In addition to that, whenever various products of generation are pooled, there are electrical benefits which, as I say, are much less identifiable. On the whole, we feel that several hundred thousand more kilowatts are obtainable by reason of this pooled operation and a very large proportion of that the Government gets, Bonneville Power Administration gets it and sells it to its customers. It is not entirely a one-way street, though. Some of the others get advantages also. Many of the other generating utilities get advantages. This is engineering. This is not law.

Mr. MAPES. I appreciate that, Mr. Jourolmon, but actually you are spelling out what I think is the main point here, that article 39 is in the license and that, as far as the hydraulic benefits go, they accrue to the Government.

Mr. JOUROLMON. That is right.

Mr. MAPES. In my first question, I did not distinguish between hydraulic and electrical.

Mr. JOUROLMON. I thought you were talking about hydraulic benefits and I was talking about that.

Mr. MAPES. There are also large electrical benefits accruing to the region and those according to the practice of the pool would be divided between Bonneville Power and, in this case, Idaho Power?

Mr. JOUROLMON. I would say automatically.

Senator NEUBERGER. With the seasonal fluctuations I think that is true.

Mr. JOUROLMON. Because of the fact that it is not possible to identify and carve them out, those benefits more or less fall to whoever happens to be available to receive them.

Mr. MAPES. Would there be a difference in the amount of the benefits if Idaho Power integrated electrically with other systems in the pool or with the Bonneville Power system? Perhaps that is an engineering question.

Mr. JOUROLMON. I refer that question to Mr. Mohler. That is definitely engineering.

Mr. MOHLER. Mr. Mapes, probably what we have to do here is distinguish between the benefits of pooling which exist now on an informal basis with the Northwest Power Pool and the benefits which would exist if there were a contract with Bonneville Power Administration or with some other members of the pool.

The downstream benefits, as we said awhile ago, which are the hydraulic portion of the benefits, are 46 megawatts. If they were to enter a contract with us under this one alternative in which they purchase summer energy rather than exchange, our firm benefits would be 24,000 kilowatts of electrical benefits, so that we would receive 46,000 kilowatts of hydraulic benefits and 24,000 kilowatts of electrical benefits, in both cases giving the figures in terms of firm energy.

It is important also to recognize that the electrical and hydraulic benefits are interdependent. One cannot exist without the other but we can break them apart for measurement.

If there were no contract but Idaho would observe the terms of its license and operate hydraulically because of its obligations under the license and elect to pick up interchange energy under the present power pool arrangement that would be done on an informal basis.

They would get it from year to year and perhaps if everything went right, full coordination would occur.

Mr. MAPES. As a side question here, Dr. Pearl, you said any member of the Northwest Power Pool can pull out of it in any week it wants to. I presume that article 39 would limit that as far as Idaho Power is concerned?

Mr. PEARL. Yes, because they are not operating under a license such as Idaho Power would be.

Mr. MAPES. In the proposal of August 7, 1957, on page 64 of the committee print, half way down the page under "Brownlee, Oxbow, and 4 downstream plants," it says:

For water released on request: annual payment one-half energy generated by storage water—

As I understand that, it is a proposal to split that 46,000 kilowatts of prime power half and half between Bonneville and Idaho Power, is that correct?

Mr. MOHLER. That is right.

Mr. MAPES. Can you give us an approximate estimate of the annual value of that in terms of dollars? Using $17 a kilowatt year I got an estimate of 23,000 kilowatts as about $400,000. Is that correct?

Mr. MOHLER. That is not corrected for the secondary energy that would be used in going with this storage energy. It is not corrected for transmission loss or transmission costs. Nor is it corrected for load factor, so that you could get many answers with that figure to start with.

I do not know what it would be. It would depend upon the assumptions that you put with the figure.

Mr. MAPES. How much percentage difference in the final answer would those factors you mention make, approximately?

Mr. MOHLER. Well, transmission cost is important, of course. It is a large part of the value. The secondary energy is important too, and to measure that the capabilities would have to be measured over an extended period, in order to determine the secondary energy that would go with the storage season energy. That was not made in connection with this figure.

Mr. MAPES. Is that a very difficult estimate to make?

Mr. MOHLER. Yes, it is very difficult.

Mr. MAPES. What about the additional condition in the same contract where the exchange energy charged to Idaho was multiplied by the four-tenths factor? Is it possible to give any annual value of that figure?

Mr. MOHLER. That would be subject to essentially the same difficulties; yes, sir.

Mr. MAPES. In other words, you cannot give the committee any estimate of what those proposals were worth in dollars and cents?

Mr. MOHLER. Not offhand. It could be computed and if it were it would depend upon the assumptions that went with it.

Mr. MAPES. Could you provide that for the committee, stating what your assumptions were?

Mr. MOHLER. That could be done.
Mr. MAPES. We would appreciate it.
(Mr. Mohler subsequently submitted the following:)

SUPPLEMENTAL STATEMENT OF C. E. MOHLER, BONNEVILLE POWER ADMINISTRATION

On page 64 of the committee print dated May 7, 1958, appears a method of settlement suggested by Idaho Power Co. During the hearing the request was made that an estimate of the "value" of this proposal be provided for the record. Because it was not stated whether what was desired was the value to Idaho Power Co. or the value to Bonneville Power Administration assuming alternative salability of the power involved, two analyses have been provided, with the assumptions of each stated:

VALUE TO IDAHO POWER CO.

I. Operating energy credit to Idaho for downstream generation from storage water released on request: 145,515,000 kilowatt-hours.

A. Assumptions:

1. Value of 2.08 mills per kilowatt-hour for firm energy at market. This is the average revenue from all sales of firm power by Bonneville Power Administration to privately owned utilities in calendar 1957.

2. Energy transmission losses of 6 percent.

3. For the purpose of this computation, it is assumed that Idaho Power Co. would buy firm power from Bonneville if its proposal is rejected, although BPA has no such firm power to sell. Since this price is much lower than any alternative source, the estimate is very conservative.

4. It is further assumed that there would be no charge for wheeling this power to Idaho Power's delivery point.

B. Computation:

$$145,515,000 \times 0.94 \times 2.08 = \$285,000$$

II. Integration energy proposed to be supplied to Idaho Power Co. but not charged to its account (584,000,000−233,600,000=350,400,000 kilowatt-hours).

A. Assumptions:

1. Value of 2.5 mills per kilowatt-hour at market for summer secondary energy. This is the regular Bonneville Power Administration H rate.

2. Energy transmission losses of 6 percent.

B. Computation:

$$350,400,000 \times 0.94 \times 2.50\text{m} = \$823,000$$

III. Total value of proposal to Idaho Power Co. as computed above:

$$\$285,000 + \$823,000 = \$1,108,000$$

VALUE TO BONNEVILLE POWER ADMINISTRATION

1. Operating credit to Idaho for storage releases: 145,515,000 kilowatt-hours.

A. Assumptions:

1. Value of 2.29 mills per kilowatt-hour for firm energy at market. This is the average revenue from all sales of power by Bonneville Power Administration in calendar 1957.

2. Energy transmission losses of 6 percent.

3. Cost of 1.0 mill per kilowatt-hour for transmission. This is merely a recent average cost and varies with stage of system development.

B. Computation:

$$145,515,000 \times 0.94 \times (2,291.0 - 1.0)\text{m} = (-)\$176,000$$

II. Integration energy proposed to be supplied to Idaho Power Co. without charge: 350,400,000 kilowatt-hours.

A. Assumptions:

1. Value of 2.5 mills per kilowatt-hour at market for summer secondary energy (BPA H rate).

2. Energy transmission losses of 6 percent.

3. Cost of 1.0 mill per kilowatt-hour for transmission.

4. Alternative salability of 50 percent for the summer integration energy involved.

B. Computation:

$$350{,}400{,}000 \times 0.94 \times (2.50 - 1.0\text{m} \times 0.5 = (-)\$247{,}000$$

III. Total value (lost net revenue) to Bonneville Power Administration:

$$\$176{,}000 + \$247{,}000 = (-)\$423{,}000$$

(NOTE.—It should be emphasized that the above computations are at best only approximate evaluations based upon the assumptions stated. If gross revenue loss to Bonneville were desired, the 1.0 mill factor for cost of transmission would be omitted, increasing the "value" to BPA by $320,715 to a total of $774,257.

(All computations above are of course based upon an assumption of acceptance by Bonneville Power Administration of the proposal as made, a course which has never been seriously considered by the Administrator and under the law could not be.)

WITH EIGHT FEDERAL PLANTS DOWNSTREAM

The above computations assume the existence of four Federal plants downstream from Brownlee Dam. Using the system of eight Federal plants downstream as computed in the second half of the proposed "method of settlement," the equivalent figures would be:

Value to Idaho Power Co.

I.	Operating energy credit	$606,000
II.	Integration energy not charged	1,206,000
III.	Total value	$1,812,000

Value to Bonneville Power Administration

I.	Operating energy credit	$376,000
II.	Integration energy not charged	362,000
III.	Total value (net revenue loss)	(−)$738,000
	Transmission costs	567,000
	Total value (gross revenue loss)	(−)$1,305,000

Mr. MAPES. I think I have one other question concerning the Northwest Power Pool.

The Northwest Power Pool involves hydraulic management of the Bonneville system, is that correct?

Mr. PEARL. All systems.

Mr. GOLDHAMMER. Hydraulic and electric.

Mr. MAPES. Who controls the hydraulic management of the system?

Mr. GOLDHAMMER. Each system contracts its own hydraulic management.

Mr. MAPES. Is there any integration within the pool?

Mr. GOLDHAMMER. That is purely voluntary. They have meetings in which suggestions are made as to how you operate. Rule curves are set up at pool meetings at the beginning of the year so that each one assumes that every other system is going to operate according to its rule curve but there is no compulsion. Any week, for its own advantage, any system could change. Normally speaking, they do not. There is generally a pool conference call once a week.

Mr. MOHLER. There is a conference call by telephone once a week.

Mr. MAPES. It is handled by telephone conversation weekly?

Mr. MOHLER. Yes, sir.

Mr. MAPES. At that time the electrical integration is also straightened out for the following week?

Mr. MOHLER. The electrical and hydraulic go together. When decisions are made on holding or using storage, why, transmission capacity has to be used in order to accomplish that. In other words, kilowatts flow back and forth across the system so that the operators do not distinguish very much between electric and hydraulic coordination. It is just coordination.

Mr. MAPES. Is there no one who can actually require the integration of all the projects in the Northwest for the maximum regional benefit?

Mr. MOHLER. Not in the pool. The pool is voluntary.

Mr. MAPES. How is the accounting handled within the pool?

Mr. MOHLER. Purely by contracts and billing. The benefits are shared under existing contracts and under existing billing arrangements.

Mr. MAPES. Is Bonneville the accounting agent for the pool?

Mr. MOHLER. No, there is no accounting agent for the pool. In other words, in operating under the pool, if we supply energy which we get by integration to a customer we bill the customer.

Senator NEUBERGER. Who keeps the books for the pool?

Mr. MOHLER. There are no books. It is voluntary.

Mr. GOLDHAMMER. Every system keeps its own books.

Senator NEUBERGER. In other words, there is no central accounting, engineering, auditing, fiscal or any other tie of authority for the Northwest power pool.

Mr. GOLDHAMMER. Correct.

Mr. MOHLER. Engineering is the operating committee. That is the central engineering group.

Senator NEUBERGER. I see.

Senator CHURCH. I have just one further question of Dr. Pearl, Mr. Chairman.

Dr. Pearl, I am very much interested in the question of the Idaho co-ops and arrangements that might make additional firm power available for their use. Since this depends upon a wheeling arrangement with the Idaho Power Co., since we have no public power transmission lines into Idaho and are entirely dependent upon the cooperation of the private utilities in the use of their transmission facilities, I was interested in your statement that the Idaho Power Co. had indicated a willingness to negotiate on this matter and I wanted to call to your attention what on the surface, at least, would appear to be a conflict in the committee print on page 79, which was of concern to me when I first read it. It is apparently a memorandum to the Office of the Administrator from Bernard Goldhammer referring to a conference with the Idaho Power people, dated December 20, 1957, calling your attention to the latter part of the memorandum toward the bottom of page 79:

> Dr. Pearl said he wished to emphasize that there was no agreement as yet but before discussing coordination with Idaho, there were two items he wished to bring up. These were:
>
> (1) Wheeling to Harney Electric Co-op since Harney is in the BPA marketing area.
>
> (2) Wheeling to the Bureau of Reclamation in southern Idaho to help firm up their power and supply additional power to preference customers in that area.
>
> Mr. Kimball—

who, parenthetically, is an executive of the Idaho Power Co.—

> stated he did not have to make any studies to answer these questions.

(1) Idaho Power Co. will not wheel BPA power to Harney, nor
(2) Will they wheel to the Bureau of Reclamation in southern Idaho.
He stated the reason for his position was the result of the preference clauses in Federal law. It would expose Idaho to loss of customers and of service territories.

In view of your statement and this testimony this morning I thought further explanation would be called for.

Mr. PEARL. There are three conditions which exist. If you read the whole thing you find it completely in that.

We asked if they would wheel to Harney County and their answer was "No." Harney County is now a customer of theirs. We asked if they would wheel our power to the co-ops. The answer was "No."

To the question of whether they would wheel the power that resulted in a coordination of Bonneville and the Bureau. They said "Yes" that they would consider that.

Senator CHURCH. It is with respect to this agreement between the Bureau and the Idaho Power Co. that the Secretary referred when he said that the studies have been completed and that the Bureau would soon take up these negotiations?

Mr. AANDAHL. That is correct.

Mr. GOLDHAMMER. Senator Church, the answer is on page 80 of the committee print.

Senator CHURCH. I think Dr. Pearl has supplied the explanation needed for clarification.

Senator NEUBERGER. Mr. Chairman, may I just inquire as to the schedule of hearings before they conclude tomorrow? I have not intruded any questions relating to the proposed Bonneville contract with the rural electric cooperative in southeastern Oregon because I did not want to confuse the issue while we were discussing the Idaho Power Co. and the conditions in southern Idaho.

Can I ask Mr. Mapes when it will be that the people representing the Harney Rural Electric Cooperative will probably be before the committee and if there will be an opportunity after that to ask a few questions of the representatives of the Bonneville Power Administration so that we can try to straighten out this situation in southeastern Oregon which has been controversial?

Mr. MAPES. As I understand the schedule, Senator, the Idaho Cooperative's representatives will be on this afternoon and the Harney Electric Cooperative's representatives will follow them, depending partly on how long we work this afternoon as to whether or not we get through the Idaho Cooperative group.

I would imagine that the Harney Cooperative people will probably be on tomorrow morning.

Senator NEUBERGER. Will Dr. Pearl and his staff be here tomorrow?

Mr. PEARL. We could make available someone from the staff if you would like to have them here.

Senator NEUBERGER. I would like somebody from the staff who is competent and qualified to discuss this Harney County situation. I did not intrude today, as I say, because I did not want to get two collateral questions, but I would like to ask questions about that tomorrow.

Mr. PEARL. Any one of the staff here could answer the questions to which you refer. I think they are all familiar with them.

Senator NEUBERGER. I would like a couple of people qualified on that to be here tomorrow morning if that is possible.

Mr. PEARL. That is possible.

Senator NEUBERGER. Thank you.

Mr. MAPES. With reference to the programing for the future, I would like to ask Mr. Aandahl if any representatives of the Bureau of Reclamation other than himself are present.

Mr. AANDAHL. I do not think there is anyone here this morning.

Mr. MAPES. I did not know whether they intended to put on separate testimony of any kind with reference to the southern Idaho situation.

Mr. AANDAHL. Nothing has been planned.

Mr. PEARL. Could I ask one question? Would you like to have some of us here this afternoon?

Senator NEUBERGER. This afternoon, I am not certain how much I can be in attendance because I have another meeting dealing with a conference committee report. I wanted to ask some questions dealing with the Harney County situation. I understand we will get to that tomorrow morning, so that I think Senator Church's desires would be more governing this afternoon.

Senator CHURCH. I do not know that we will have occasion to call on a witness but to expedite the proceedings I think it would be helpful if we had one or two here because certain questions may arise as a result of the testimony of the Idaho Co-op people and it might be helpful to have one of your people standing by.

The CHAIRMAN. The committee will recess, then, until 2:30 this afternoon, at which time the co-ops will be heard.

(Whereupon, at 12:25 p. m., the hearing was recessed until 2:30 p. m., this same day.)

AFTERNOON SESSION

The CHAIRMAN. The hearing will come to order.

The first witness this afternoon will be Charles A. Robinson, Jr., of the National Rural Electric Cooperative Association, from Washington, D. C.

Inasmuch as I will be tied up in another meeting this afternoon, I am going to ask Senator Church to take the chair and conduct the proceedings.

Senator CHURCH (presiding). Mr. Clyde Ellis is here with us this afternoon.

I understand, Mr. Ellis, that you would like to say a few words before we hear Mr. Robinson's testimony.

STATEMENT OF CLYDE ELLIS, GENERAL MANAGER, NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION

Mr. ELLIS. Yes, sir; I would like to say a few words and then defer to him for most of our substantive statement.

Mr. Chairman, my name is Clyde Ellis, for the record. I am and have been since 1943, with a short leave of 2 years in the military service, general manager of the National Rural Electric Cooperative Association. During that time I have observed the operations of the Idaho Power Co., not intimately but generally, with regard to par-

ticularly its attitude toward the rural electric cooperatives in Idaho, Washington, and Oregon, and have observed its actions toward them.

As Mr. Robinson will point out in more detail, this company has killed three rural electric cooperatives. No other power company in America can boast such a record. It has tried to kill a fourth, and failed.

I am glad this committee could observe this morning the Idaho Power Co.'s attitude in refusing to come here at the committee's request because I think its refusal to come and defend itself is a manifestation of attitude. Remembering that the Idaho Power Co. is an eastern-controlled—I do not mean that that is wrong—a Wall Street controlled, if you please, corporation operating in the West, I think its refusal to come here is another evidence of its rape of resources in the West, and rape of the rural electric cooperative part of the people's resources in the West.

It is a part of the same attitude which defies the laws of Oregon in going ahead with Brownlee Dam without having Oregon's permission, according to its laws; it is a part, in my opinion, of its defiance of—it is all a part of the same pattern, I am trying to say—of its defiance of even the license which it gets from the Federal Government, as brought out so clearly here this morning by Senator Neuberger, in apparently not coordinating with the power pool.

It seems to me that it is out to deal with whomever it can deal best, regardless of what the law says or what its obligations under the law are.

I am glad to see the co-op people here from your great State of Idaho, Mr. Chairman. I am sure they will have an interesting story to tell. I think that the Idaho Power Co.'s refusal to wheel—and they have refused to wheel and over long years they have refused to wheel—the very power that belongs to the people of your State to the people of your State as required by the law, is simply again a part of this pattern.

They could have corrected this long ago before they had to, as many power companies have done throughout the country. But no, Idaho Power Co. must be bigger than the law, it must be bigger than the Federal Government, it must be bigger than the Department of the Interior, it must be bigger than the State of Idaho, and bigger than the West.

With that I yield for our formal statement to Charles A. Robinson, Jr., who has been some 8 years the electrical engineer of the Rural Electric Cooperative Association.

Senator CHURCH. Mr. Ellis, I take it from your preliminary remarks that in your own experience you entertain apprehension that the Idaho Power Co. will in fact reach a wheeling agreement with the Bureau of Reclamation whereby these co-ops in southern Idaho will get the benefit of the 13,000 kilowatts of additional power that could be realized through integration of the Bureau's system in the BPA?

Mr. ELLIS. May I answer you this way, Senator Church: I participated in the meeting of one of your cooperatives at Fairfield, Idaho, a few years ago when officials of the Idaho Power Co. were trying to kill that co-op. I was there. I saw the attitude of the officials. It was one of contemptibility toward the people. We are king, we will take, was their attitude in the meeting.

I don't believe the Idaho Power Co. will ever do anything to help an electric cooperative anywhere until it is made to do so. And even then it can throw many roadblocks.

Senator CHURCH. Thank you very much, Mr. Ellis.

Members of the committee, I know, appreciate your coming and giving us the benefit of your views.

Mr. Robinson, I note that your prepared statement is quite lengthy. I am wondering whether it might not be possible for you, in the interest of expediting these hearings, to summarize for us the statement, with the understanding, of course, that the entire text will go into the record of the proceedings, and then make yourself available for such questions as may be asked.

Would that be possible?

STATEMENT OF CHARLES A. ROBINSON, JR., STAFF ELECTRICAL ENGINEER, NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION

Mr. ROBINSON. Mr. Chairman, I certainly want to do everything to conserve the time of the committee. The statement was a good deal longer when we prepared it and we boiled it down as much as we could.

I would like to proceed and omit such portions of it as I feel can be omitted without destroying the context of it and read such portions as I think are important, if that would be all right.

Senator CHURCH. That will be fine, if you will keep in mind the problem that we have here on the committee, since we have a number of witnesses that we have to hear in a short period of time.

The hearings were scheduled to take just two days and we have a number of witnesses here.

Mr. ROBINSON. Thank you very much, Mr. Chairman.

My name is Charles A. Robinson, Jr. I am and have been for 8 years the staff electrical engineer of the National Rural Electric Cooperative Association. NRECA is the national service organization representing some 90 percent of all REA-financed electric-type borrowers in the United States and Alaska.

The interest of the rural electric systems in the Pacific Northwest in matters being considered by this committee arises from their status under the law as preference purchasers of wholesale electricity generated at multiple-purpose river basin development projects constructed by the Federal Government.

All of the rural electric systems in Washington and Oregon, except one, and all of the rural electric systems in Montana and Idaho west of the continental divide depend upon the Bonneville Power Administration for their supply of wholesale energy.

Some 450 rural electric systems—nearly half of all of them—depend on Federal power marketing agencies for all or a portion of their wholesale power requirements. These systems will purchase from the Government about 8.9 billion kilowatt-hours during this fiscal year and will pay for them $43.9 million—approximately $120,000 per day.

While under ordinary circumstances the interconnection of an investor-owned utility system with a Federal transmission system might

not be of immediate or substantial interest to the rural electrification program, the preference customers are, in this instance, obliged to make clear their position in the hope that further and additional subversion of their rights as preference customers for Federal power can be precluded.

The exercise of these rights has, on prior occasions, prevented, and is now being prevented by the affirmative hostility of the Idaho Power Co. and by the apparent artlessness of the Department of the Interior in negotiating with that company as evidenced by interconnection agreements already executed by these two parties.

There are two major circumstantial patterns which should be considered by the committee in any determinations it makes concerning the interconnection of the Idaho Power Co.'s Brownlee project, now nearing completion, and the Northwest Power Pool. These are:

A. The uniquely successful record of the Idaho Power Co. in destroying the integrity of rural electric cooperatives.

B. The apparent inability of the Department of the Interior in executing power exchange agreements with the Idaho Power Co. to adequately protect the interest of preference customers.

We offer the following facts in support of these contentions:

The attitude of the Idaho Power Co. toward electric cooperatives: Between 1945 and 1949, the Idaho Power Co. caused the sellout of three rural electric systems within or adjacent to its service area as follows:

1. The Jordan Valley Electric Co-op on November 9, 1945.
2. The Long Valley Electric Cooperative on February 1, 1946.
3. The Malheur Electric Cooperative on June 1, 1949.

This is a unique record. No other company has put out of business that many rural electric systems.

The records also indicate that the same company prevented, in substantial measure, the organization of a fourth rural electric system.

And, in 1950 the company attempted, in addition, to buy out the Prairie Power Cooperative at Fairfield, Idaho, which was at the time purchasing its wholesale energy from the company at 10.7 mills per kilowatt-hour. However, the cooperative at Fairfield was later able to complete a transmission line to the Bureau of Reclamation's Anderson Ranch Dam, thereby cutting its wholesale power cost to 5.7 mills per kilowatt-hour. And its consequent ability to render reliable service at reduced rates was of sufficient influence to prevent the sellout.

In commenting on these acquisitions and attempted acquisitions by his company, Mr. R. P. Parry, counsel for the Idaho Power Co. while offering testimony in opposition to authorization of the Hells Canyon project, stated at page 717 of the 1955 hearings held before the Irrigation and Reclamation Subcommittee of this committee, May 4, 1955:

> The company has nothing to be ashamed of in connection with its dealings with these REA's. It is very proud of its record. It ill behooves any witness to mislead the Congress by incorrectly stating the facts.

And following Mr. Parry's oral statement, there appears at page 816 a supplemental prepared statement by Mr. Parry purporting to justify these sellouts of electric cooperatives which we contend were caused by the monopoly motivated pressure tactics of his client.

The reports of eyewitnesses to these sellouts of cooperatives to the Idaho Power Co., and the reports of REA field personnel, copies of which are in our files at the present time, controvert rather completely Mr. Parry's 1955 testimony which paints the Idaho Power Co. as an unselfish patriarchal organization wishing only to save the farmers of its area from financial ruin brought about by the construction of uneconomic electric cooperatives conceived by incompetents in Washington, D. C.

The reports of REA field personnel made at the time reveal that although the cooperatives which sold out were experiencing some financial difficulty, they were in no sense of the word bankrupt. The Malheur Electric Cooperative was not sold out until 1949, but an REA field report indicates the probability that, as early as 1946, the Idaho Power Co. exerted pressure to bring about the sale of a newspaper in the cooperative's territory to a publisher bitterly opposed to public power.

An REA field memorandum dated September 16, 1945, states as one purpose of the writer's trip:

> Determine present status of Oregon 27, and evaluate current activities of Idaho Power Co. to destroy that system.

The cooperative known then as Oregon 27 Harney was never actually operated and bears no relation to the cooperative now designated as the Harney Electric Cooperative of Burns, Oreg. However, the role of the Idaho Power Co. in preventing organization of the earlier cooperative known as Oregon 27 Harney is of interest. The REA field report dated September 16, 1945, reads in part as follows:

> It was learned that while the Idaho Power Co. was active in the Juntura-Drewsey territory in attempting to sign up all the members, that they were incurring the displeasure of some of the residents of that area who had previously expressed, at the meeting in Drewsey on August 25, 1945, their preference for the power company in that the power company was endeavoring to get them signed to contracts with a larger guaranty than the 85 cents per month minimum guaranty, which they so avariciously announced publicly at that meeting.
>
> Mr. George L. Baker of Juntura, Oreg., president of subject system, contacted Messrs, Swan and Williams in Vale, Oreg. and requested that a letter be prepared for his signature to the public utilities commissioner of the State of Oregon to protest the power company's indiscriminate application of and violations of the Oregon extension rule filed with the Commission by the power company.
>
> * * * Mr. Swan also advised the writer that Larry Brainard—and this is quoted language—"Division manager of the power company, and chief conveyer of irresponsible information, had called him by telephone to advise that he had a letter from the public utilities commissioner for the State of Oregon consenting to the power company invoking the Oregon extension rule at its discretion.
>
> "This power company has evidenced that it will stop at nothing to achieve its aims and have apparently resorted to vile propaganda through its agents or representatives."

Concerning the sellout of the Long Valley Electric Cooperative, an REA field memorandum of January 31, 1946, reads in part as follows:

> Arriving in Donnelly, we found that the Idaho Power Co. had completed a most successful campaign. The principal ammunition was a reduction of approximately 50 percent on rates and lowering the monthly minimum to $0.85.
>
> On the dissolution of this cooperative several hundred people residing in this area will be deprived of central station electric service.

A rather complete article describing the sellout to the Idaho Power Co. of the Malheur Electric Cooperative of Vale, Oreg., in the spring of 1949, appears at page 26 of the June 1949 issue of Rural Electrification magazine. The article was written by Mr. Kenneth McCandless, an on-the-spot witness and editor of the Pacific Northwest Cooperator.

The Malheur Cooperative, located in eastern Oregon, was isolated from the Bonneville Power Administration's 3-mill wholesale power rate and was obliged to purchase wholesale energy from the Idaho Power Co. at over 3 times that rate. The company would sell the cooperative no power at all until ordered to do so by the Federal Power Commission.

The Idaho Power Co. in order to buy out this cooperative paralleled with its own facilities most of the cooperative lines as evidenced by pictures in the old magazine. Concerning the Malheur sellout, Mr. McCandless' article reads, in part, as follows:

> Not only did IPC plant duplicate meters on co-op members property, but the company finally agreed to sell the co-op power only at irrigation rates (not wholesale rates). It was only after the Federal Power Commission resorted to an unusual order to Idaho Power Co. to sell the co-op power that Malheur even got the high cost supply.

Concerning the attempted buyout of the Prairie Power Cooperative, an REA field activities report, dated October 5, 6, and 7, 1950, reveals that on the evening of October 7, 1950, at the office of the Prairie Power Cooperative, of Fairfield, Idaho, a meeting was called at the request of the Idaho Power Co.—not the co-op—between its officers and the board of directors of the cooperative.

The report of the REA fieldman reads as follows:

> Idaho Power Co. proposal: Mr. Gale presented the power company proposal in about an hour's talk. Misrepresentation and distortion of facts were obvious. However, he is a poised, ruthless speaker, bringing each point into sharp focus and he undoubtedly made a strong impression even while arousing the anger and resentment of the board.
>
> Proposal to purchase: Mr. Gale summarized the indicated difficulties for the cooperative in view of which his company was willing to consider purchase of the system. He stated the company would probably be able to pay an amount sufficient to meet all the cooperative's obligations. As additional reason for selling Mr. Gale stated the company would pay higher taxes than the cooperative. * * *

At that time this particular cooperative was considering the construction of a transmission line to the Anderson Ranch Dam to get low cost Federal power. With respect to it the REA field activities report reads as follows:

> Anderson Ranch Dam tie line. Mr. Gale said that he could urge strongly that if the cooperative should consider sale, the Anderson Ranch Dam tie line not be built since this line would have little value to the company.

The report continues:

> The following significant statement made by Mr. Gale is substantially in his words.
>
> If you connect to the Bureau you will no longer be our customer. The company has no standby rate and we do not provide standby power. When you leave our service, anybody who applies to our company will be served and you may lose a considerable number of customers. This reduction in customers happened at Vale (Malheur sellout) and that was a basic reason for that system selling out.

So the company had not only offered to buy the Prairie Power Co-op system, but, threatened to raid its territory if the acquisition were

resisted, and admitted that similar tactics by it had caused the previous sellout of another co-op.

Ultimately, and notwithstanding the threats of Mr. Gale, the Prairie Power Cooperative built its transmission line to Anderson Ranch and thus preserved its integrity.

Allow me to direct the attention of this subcommittee to the fact that this is the company which is building the Brownlee project and with which the Department of the Interior must negotiate its interconnection with Bonneville Power Administration.

Finally, in establishing, as a foundation, the attitude of the Idaho Power Co. toward preference customers in its area, allow me to quote from page 24 of the report of the Administrator of the Rural Electrification Administration, 1946:

> In the Northwest for the first time in REA history, REA borrowers sold out to a utility in the apparent belief that they could not succeed as co-ops. Members of the Jordan Valley Electric Cooperative of Jordan Valley, Oreg., and the Long Valley Power Cooperative of Donnelly, Idaho, voted to sell their cooperatives to the Idaho Power Co. during the year.
>
> Both of these cooperatives had some financial difficulties but neither of them was in any sense bankrupt. They were handicapped during the war because of inadequate power. Plans to improve both systems were underway when the sales were consummated. The members were influenced to disband by a fast and clever power company propaganda campaign that stressed the company's lower rates and concealed the long-range advantages of cooperative ownership and nonprofit operation of rural electric facilities.

Preference customers in southern Idaho and existing power exchange agreements between Bonneville Power Administration, the Bureau of Reclamation, and the Idaho Power Co.: There are 16 power distributors and 2 irrigation districts in southern Idaho which are completely dependent on the Bureau of Reclamation for wholesale energy supply.

Senator CHURCH. This is southern Idaho?

Mr. ROBINSON. Yes, sir. These consist of one REA-financed electric cooperative, one very small private utility company, and 14 mutual and municipal electric systems. Each of them grew up around the Minidoka project of the Bureau of Reclamation which in its initial years had surplus power available for sale especially during the winter months when irrigation loads were down. The Bureau encouraged the growth of these systems as a market for Federal power. And to serve them, the Bureau built a small transmission system in connection with the Minidoka project. As their load developed in the area, the Bureau of Reclamation, beginning in about 1920 contracted with the Idaho Power Co. for the delivery to the Minidoka project of surplus energy from other Bureau projects in the area, especially those on the Boise River.

However, between 1950 and 1954, it became apparent that all of the power provided from both the Minidoka and Boise projects could not supply the electrical demands of the 16 customers in southern Idaho.

And on July 6, 1955, the Bureau of Reclamation, over the signature of Mr. M. L. Tillery, superintendent of the Minidoka project, wrote to each of its 16 commercial power customers in the area in reference to a meeting held on March 31, 1955, about 4 or 5 months before, during which the entire problem was discussed. The July 6, 1955, letter told these customers that they were overrunning the Bureau's ability

to supply power and requested them to seek other sources of supply, presumably the Idaho Power Co., for that is the only other source in the area. The Government offered its customers as a temporary solution to their problem additional power at a 15 percent rate increase caused by the necessity for the Bureau purchasing supplemental power from the Idaho Power Co. to supply its customer demands.

However, in its July 6 letter, the Bureau unequivocally stated that this was a temporary measure only—that is the additional power at 15 percent surcharge—and was not intended as any substitute for direct purchase by the customers of additional required power from the Idaho Power Co.

After that year the 16 customers would have to go to the Idaho Power Co. for such power in excess of that that they were using at the time.

Thus, by March 31, 1955—and the dates are important—the Bureau of Reclamation had notified its customers that such additional power as was required by them for load growth would have to be met from other sources. The only alternative source was the Idaho Power Co. which offered a rate approximately 33 percent above that of the Bureau of Reclamation rate.

The eastern terminus of the Bonneville Power Administration is located at La Grande, Oreg. The western end of the Idaho Power Co. system is located about 45 miles to the southwest of La Grande, at Baker, Oreg. Both systems derive practically all generation from hydro, but because of streamflow and load diversity, the peak load occurs on the much smaller Idaho Power Co. system during the summer irrigation months between April and October simultaneous with the availability on the Bonneville system of large quantities of energy above system load. Bonneville's peak season occurs during the winter months.

The interconnection of the Bonneville and Idaho Power Co. systems by a Baker-La Grande 230 kilovolt transmission line was considered for many years. It is my recollection that an appropriation request was sent up to the Congress several years ago for Bonneville to build that line, but it was denied.

In November of 1954, approximately 6 months before the critical situation developed in southern Idaho, but at a time when the Department was anticipating it, the Federal Power Commission completed a study of the benefits that would accrue to the Idaho Power Co. from the Baker-La Grande intertie with Bonneville. FPC concluded that the transfers of summer surplus energy from the Bonneville Power Administration to the Idaho Power Co. would benefit the company by some $1,033,000 per year or nearly 2½ times the estimated annual costs of the line. That was a published report and is available at the Commission.

With this FPC study already complete and published, and with the critical situation developing in southern Idaho, the Department of the Interior, on March 14, 1955, entered a 20-year contract with the Idaho Power Co. for the exchange of energy over the Baker-La Grande transmission line which was at that time built by the company.

This agreement provides for not only the exchange of surplus energy between the Bonneville system and Idaho Power Co., but for release by the Government of storage water at Hungry Horse Dam

for the purpose of meeting Idaho Power Co. peak loads during the summer on condition such storage will be replaced by the company during the succeeding winter.

But, despite the fact that the Government was faced with a severe deficit of summer power to supply customers in southern Idaho and despite the preexisting knowledge that the contract between the Bonneville Power Administration and the Idaho Power Co. would make available to the company, during the summer months when it was most urgently needed, large blocks of Bonneville Power Administration energy as well as peaking capability from the Hungry Horse project, no provision was included in the contract to provide for the wheeling of any additional power to the hard-pressed preference customers in southern Idaho.

This is in part, at least, due to the fact that on August 11, 1954, the Department had effectively surrendered to the Idaho Power Co. whatever opportunity might have existed to secure the wheeling of additional Federal power to its customers in southern Idaho.

For it was on that date that the Department abolished its regulation which required applicants for electric transmission line right-of-way easements across Federal lands to allow the Government to utilize surplus capacity in such lines for the wheeling to Federal agencies and preference customers of Federal power.

Senator CHURCH. Let us nail down a point right here. With respect to the Baker-La Grande tie, does that transmission line run over public lands?

Mr. ROBINSON. Sir, I can't answer that question. I would say this: That the Idaho Power Co. was a prime mover in having that regulation abolished by administrative action after it lost one case in the Supreme Court of the United States in which it attempted to negate an FPC condition in a license requiring those provisions to be in it, and a second case which was decided in the circuit court, and which it lost, in which it attempted to, by judicial action, repeal the administrative regulation.

Senator CHURCH. Dr. Pearl, can you answer my question? Do you have that information available?

Mr. PEARL. No, I do not. That is not my line. We did try to obtain that information yesterday, but we were unable to get it.

Senator CHURCH. You don't know whether or not that tie does run over public domain?

Mr. PEARL. I do not know.

Mr. ROBINSON. Our point in general is this, Mr. Chairman: That in surrendering that right the Government relinquished a rather substantial part of any bargaining power it might have had with the company relative to the wheeling on any part of its system.

Senator CHURCH. I was trying to determine the relevance of this to the particular tie that we are discussing here in the 1955 contract.

Mr. ROBINSON. With respect to this change of departmental transmission line regulations, it is stated at page 3 of House Report No. 1975, 84th Congress, 2d session, entitled "Thirteenth Intermediate Report of the Committee on Government Operations" as follows:

> The changes in the regulations * * * were adopted by the Interior Department verbatim from an anonymous document delivered personally without a covering letter or memorandum by a registered lobbyist of the Pacific Gas & Electric Co. to the then Solicitor and now Under Secretary of the Interior, Clarence A. Davis,

following Mr. Davis' request to the lobbyist to secure for him the views of the western electric utility companies on the changes they would like to see in the regulations. * * * In all, of the 13 changes suggested in the document, the Department adopted 10 verbatim, 1 with a single word added, 1 basically with a language change, and 1 was not adopted. * * *

The anonymous document was prepared in the office of the Idaho Power Co. following consultations among the utility company attorneys.

The fact that the document containing these changes was prepared in the office of the Idaho Power Co. and then taken to Washington by Mr. Herman C. Kruze, executive representative of the Pacific Gas & Electric Co., was admitted by Mr. Kruze and by Mr. Robert H. Gerdes, executive vice president of the same company at pages 393–395 of hearings before a subcommittee of the House Committee on Government Operations held on September 12, 1955, and entitled "Certain Activities Regarding Power, Department of the Interior (Changes in Power Line Regulations)."

Senator CHURCH. So that I may understand the purport of your testimony, you are testifying that the regulation that was adopted by the Department of the Interior, which waived a previous requirement that in cases where a private utility company constructed a transmission line over public lands, the Federal Government could require, as a condition to the right-of-use of the public lands, that these lines be used for purposes of wheeling public power insofar as the excess capacity of the lines would permit?

Mr. ROBINSON. Yes, sir; that is correct.

Senator CHURCH. That the relinquishment of the Department of such provision and the adoption by the Department of a statute provision, was in fact a provision that was written by the Idaho Power Co.? Is that the purport of your testimony?

Mr. ROBINSON. It was prepared in the office of the Idaho Power Co. after consultation between it and a group of western utility companies, including Pacific Gas & Electric Co., and others.

Senator CHURCH. And you say that this fact was admitted to?

Mr. ROBINSON. Yes, sir; it was admitted to at pages 393 through 395 of hearings before a subcommittee of the House Committee on Government Operations, held on September 12, 1955.

Senator CHURCH. That was the Chudoff committee?

Mr. ROBINSON. The Chudoff subcommittee; yes, sir.

I believe that is the report. The hearings are a little more voluminous.

Senator CHURCH. Thank you.

Mr. ROBINSON. Shortly before the Baker to La Grande transmission line was constructed, the Government had, therefore, removed itself from a bargaining position from which it could insist on the wheeling of additional power to its preference customers in southern Idaho.

Despite this situation, despite the fact that Federal Power Commission had estimated benefits to the Idaho Power Co. at in excess of $1 million per year from its construction of the Baker-La Grande transmission line, despite the fact that the company, between May 1955, and August 1957, received 1,274 times the energy it delivered over the line, despite the fact that its contract with the Government provided for not only surplus energy but valuable peaking capacity during the summer months, the Assistant Secretary of the Interior for Water

and Power did not and does not admit to the significance of this situation to his preference customers in southern Idaho.

For on April 19, 1957, long after the results of the Baker-La Grande contract were apparent, the Assistant Secretary of the Interior for Water and Power wrote to Senator Church as follows:

With reference to Mr. Schlender's letter pertaining to the contract between the Bonneville Power Administration and the Idaho Power Co. * * * it is an exchange agreement similar to other contracts BPA has with practically all of the generating utilities in the region, both publicly and privately owned. Under the terms of these exchange agreements BPA and the utilities interconnect * * * in a manner which takes advantage of diversities and streamflow and loads. * * * This surplus energy is the lowest priority of interruptible power sold by BPA and is only sold on if-available basis after all other contractual commitments of BPA are fulfilled.

But what is actually happening under the so-called surplus power exchange contract, referred to by the Assistant Secretary, is that Bonneville is selling to Idaho Power Co. at the western end of the latter system tremendous blocks of energy at 2½ mills per kilowatt-hour which is being utilized to meet firm load on the Idaho Power Co. system and is replacing steam energy that would have to be purchased from Utah at about twice that cost. At the same time the Bureau of Reclamation in Idaho was being forced to pay a surcharge to the same company and pass on the higher rate to the preference customers in southern Idaho.

Finally on January 23, 1958, a study was completed by the Bonneville Power Administration and the Bureau of Reclamation which indicates that a minimum of 13,000 kilowatts of additional firm power, as well as considerable peaking, could be made available for preference customers in southern Idaho by utilizing transfers of Bonneville summer surplus energy over the Baker-La Grande transmission line.

This, with respect to service to its preference customers in southern Idaho the Department has, since 1954:

1. Abolished at suggestion of power companies, prior regulations requiring investor owned utility companies desiring to build transmission across Government lands to utilize excess capacity of such lines for wheeling Federal power to Government agencies or preference customers.

2. Although forewarned by a Federal Power Commission report that the Baker-La Grande transmission being constructed by the Idaho Power Co. would benefit the company more than $1 million per year, the Department apparently without determining how much additional firm energy could be made available in southern Idaho for its customers agreed to deliver surplus energy and peaking capacity during the peak load season of the Idaho Power Co. at dump rates without provision for wheeling to preference customers.

3. The Bonneville Power Administration finds itself unable to deliver Federal power to the newly organized Harney Electric Cooperative at Burns, Ore. and the Idaho Power Co. refuses to wheel Federal power to this cooperative.

4. Has now completed a study which indicates that firm power for preference customers could derive from the Baker-La Grande tie.

It will, of course, be stated by representatives of the Department of the Interior that the loads of the cooperatives in southern Idaho

are now being met because of the availability to them of a small additional quantity of power from the Palisades project in eastern Idaho. This, however, is a temporary solution only because nothing more than summer irrigation power is available to customers in southern Idaho from the Palisades project.

In negotiating for the sale of power from it, the Department did not require that substantial blocks of Palisades' power be wheeled and firmed by the Idaho Power Co. for the use of preference customers in southern Idaho. After 1 or 2 years, therefore, the situation in southern Idaho will again be critical.

With respect to the interconnection of the Brownlee project with the Northwest Power Pool: The burden of integrating the Brownlee project with the Northwest Power Pool or portions thereof is not upon the Government. That burden is unmistakably upon the company pursuant to article 39 of the FPC order issuing the license.

This certainly would appear to us to afford an excellent opportunity for the Department of the Interior to reappraise its positions with respect to the Baker-LaGrande intertie and to insist that the company wheel additional power to preference customers in southern Idaho.

It would also seem to be an excellent opportunity for seeking from the Idaho Power Co. an agreement to wheel Federal power to the Harney Electric Cooperative at Burns, Oreg., which is beyond the Bonneville transmission system and is, therefore, obliged to purchase its wholesale energy from the Idaho Power Co. at a rate which in no way reflects the benefits previously conferred upon that company by the Department of the Interior (9.4 mills per kilowatt-hour).

With respect to this facet of the negotiations the Department seems to be telling the preference customers and the Congress one thing and the company another.

For on February 17, 1958, even after it was evident from a Department study that the Baker-LaGrande contract could make additional firm power available in southern Idaho, Mr. Hatfield Chilson, Acting Secretary of the Interior, wrote to Senator James E. Murray, the chairman of this committee, as follows:

> We are pleased to receive your comments. However, we must observe that any lines constructed by the company in connection with Brownlee would come under the jurisdiction of the Federal Power Commission and that the problem of wheeling is not resolved by the coordination requirements of the FPC license.
>
> If wheeling arrangements are to be consummated they must be arrived at through contract negotiations. The Department, of course, possesses authority to enter into a wheeling agreement for purposes of southern Idaho power marketing. However, that not being embraced in the coordination requirement, a wheeling agreement, if reached must be premised upon contract negotiation elements outside the license requirements of coordination per se.

And, on December 20, 1957, Assistant Secretary Aandahl in a letter to Mr. Edwin H. Paskett, president of the Raft River Electric Cooperative, of Malta, Idaho:

> * * * You also request we use the occasion for the negotiation of an exchange agreement with the Idaho Power Co. for the coordination of its Brownlee and Oxbow projects with the Northwest Power Pool as a means of getting wheeling provisions for Columbia River power.
>
> In this instance, coordination of the Idaho Power Co.'s Brownlee and Oxbow plants with the Northwest Power Pool and the wheeling of Bonneville Power Administration secondary energy by the company are not interrelated and one

should not be used as a leverage for the other. The FPC license requires coordination, and the Department cannot as a matter of right under license require the Idaho Power Co. to contract to wheel Columbia River power for the Government.

Notwithstanding these representations to the Congress and to the preference customers, there appears at page 79 of the committee print entitled Columbia Basin problems, a memorandum of the chairman of the Committee on Interior and Insular Affairs, United States Senate, 85th Congress, 2d session, dated May 7, 1958, a copy of a Bonneville Power Administration internal memorandum dated December 20, 1957, which relates occurrences at a meeting held on December 18, 1957. between the Idaho Power Co. and the Bonneville Power Administration relative to integrating of the Brownlee project.

The memorandum reads in part as follows:

Dr. Pearl said he wished to emphasize that there was no agreement as yet but before discussing coordination with Idaho, these were two items he wished to bring up. There were: (1) wheeling to Harney Electric Co-op. Since Harney is in the BPA marketing area, (2) wheeling to the Bureau of Reclamation in southern Idaho to help firm up their power and supply additional power to preference customers in that area.

Mr. Kimball (vice president and general manager, Idaho Power Co.) stated he did not have to make any studies to answer these questions: (1) Idaho Power Co. will not wheel BPA power to Harney, nor (2) will they wheel to the Bureau of Reclamation in southern Idaho.

There was some discussion of that point this morning, Mr. Chairman, and I believe some of the witnesses for Bonneville stated that at a later point in that memo it was related that the company would wheel other energy. But the reason given, and I think this is the key to the situation, the reason given by Mr. Kimball at that page in the committee print for not wheeling is that—

to wheel would deprive the company of its customers because of the preference provisions of law.

That reason would apply to wheeling of this power or any other power. So regardless of what power he wheeled he would be risking losing customers. If that is his stand on this power—and he remains consistent—it looks as though the company would refuse to wheel any power to southern Idaho or to Harney.

Senator CHURCH. In this connection, I grant that there is some obscurity. However, it was my understanding this morning, as it was explained by Dr. Pearl, that the company took the position that it would not wheel power into Idaho for the purpose of supplying co-ops which it regarded as competitive. But when asked whether it would undertake to negotiate to wheel power for purposes of integrating the Bureau's system with the BPA so that the Bureau system could realize this additional 30,000 kilowatts, in response to that as the objective for the negotiations, the company took the position that it would be willing to take this matter up and negotiate with the Bureau.

I recognize that there is an obscurity here because if the company were to come to a satisfactory agreement that in turn would enhance the productive capacity of the Bureau plants by 13,000 kilowatts, that power would be made available to preference customers which the Idaho Power Co. regards as competitive, so there is that obscurity.

I am hopeful that negotiations between the Bureau and the Idaho Power Co. will soon clarify that.

Mr. ROBINSON. These 16 customers are supplied from the Minidoka project and it is not interconnected with any other Bureau project. Every kilowatt-hour that goes in there has to go in over the Idaho Power Co. line. Whether they wheel that power in there for the account of the Government for redelivery to preference customers or whether they wheel directly to preference customers doesn't seem to make much difference. So I think that if this is the contention of the Government, it is a pretty fine distinction.

Senator CHURCH. You understand that in southern Idaho we are faced with this problem generally. All of our co-ops who are entitled under the law to be treated as preferential customers for power generated at public plants must depend upon the transmission lines of private utility companies to receive power.

The only public transmission line that we have is the line—in southern Idaho—is the line that connects the Palisades Dam with the Goshen station. Aside from that we have to depend on private utility lines to get this power to the customers.

That poses, it seems to me, a rather serious public question. If private utility companies, in control of the lines, do not undertake to cooperate so that satisfactory wheeling agreements can be made, then it means that the objectives of the law will be frustrated. Or, in the alternative, it means that public power transmission lines must be constructed. And in many instances the construction of public power transmission lines may involve a large cost and an unnecessary duplication of facilities.

So that it seems to me in the public interest that where we do have lines, whether they are public lines or private lines, it is to the interest of all concerned that these wheeling arrangements be made and the cooperation of the private utility company is certainly essential to this end.

Mr. ROBINSON. Yes, sir. In my opinion the position of the Idaho Power Co. to flatly refuse wheeling is untenable. As I recall, the Utah Power & Light Co. agreed to wheel although not to firm a small portion of Palisades power to the municipality at Idaho Falls and to two co-ops located close to the Goshen substation. The companies in nearly every section of the country except the Idaho Power Co. have agreed to wheel Federal power although it has taken in many instances several years to bring them to that point.

Just this past year contracts were signed in the Southeast between the Florida Power Corp., the Georgia Power Co., and the year before that with the Carolina Power & Light Co., and prior to that with the Virginia Electric & Power Co.

So that from each of the multiple-purpose dams in the Southeast the preference customers are getting wheeling service, and they are getting wheeling service in many other sections of the country.

The Idaho Power Co. would appear to be one of the last holdouts in this position.

Why the Department should assume one attitude toward the Congress and its preference customers and another toward the company is unanswerable at this time. It goes without saying, however, that the company is aware of the Department's manifestations to its preference customers and to the Congress. Its decision to stand firm on refusal to wheel additional power as a condition for the integeration

of its Brownlee project is easily understood in the light of these facts, however.

As long as the Government refuses to use its bargaining position as the major power supplier in the Northwest to use its position as a lever to secure these wheeling contracts, and as long as it makes this position plain to the preference customers, it is almost a certainty that the company is not going to come around to the Government's way of thinking or the preference customer's way of thinking.

It cannot be overemphasized that article 39 of the FPC order issuing the Brownlee license to the Idaho Power Co., dated July 27, 1959, provides that—

> The licensee shall operate the project and its system in coordination with the Northwest power pool and shall arrange for such transmission facilities as may be required for such operation.

Allow us to call your attention to the fact that the Bonneville Power Administration operates a system with resources of over 5 million kilowatts whereas the generation of the Idaho Power Co. is on the order of 350,000 kilowatts. Moreover, the Bonneville Power Administration controls the only major transmission system north and west of the Idaho Power Co. area.

Notwithstanding all of these factors, a Bonneville Power Administration interoffice memorandum of December 20, 1957, reproduced in the committee print, reveals that the position of the company with respect to the integration of the Brownlee project is as follows:

1. That the critical year of the Northwest Power Pool be used to determine Idaho Power's firm capability. Of course, the critical year for the pool is different than that for the company. Therefore, such an assumption would increase the firm power attributable to the company under any power exchange arrangement.

2. That Idaho should be entitled to the generation of its own system. If this assumption were accepted, at all times and irrespective of pool requirements, the company would be entitled to operate its system in such a manner that the power available from it would never fall below what would be available from the system were it operated as though isolated.

3. The company to participate in the downstream benefits which result from the Brownlee project. This is in our opinion the most unjustified of all of their demands because of the fact that the very project which they are building has deprived the Northwest of 2 million acre-feet of storage and several hundred thousand kilowatts of power because of the substitution for Hells Canyon of the Idaho Power Co. plan, the company should receive benefits for such reduced downstream benefits as may be conferred by its relatively small projects.

4. The company desires that winter energy be recognized as more valuable than summer energy. This is nothing more than a demand that during the winter when the Bonneville system buys Idaho Power Co. surplus energy, a higher price should be paid for it than for surplus Federal energy sold to the company during the summer. In fact, in its original contract proposal of January 21, 1957, the company proposes that the Government give it free of charge substantial blocks of energy during the summer to meet Idaho Power Co. peak loads and additional large blocks of summer energy for the

same purpose at 1 mill per kilowatt-hour which is below any existing approved BPA rate.

And although the company is using as a bargaining lever the fact that it is now in a position to purchase, at incremental cost, summer steam energy from the Utah Power & Light Co. it has admitted that such steam energy will be insufficient to meet its needs in future years.

The latest thinking of the Department of the Interior with respect to the integration arrangement is evidenced by a letter of April 1, 1958, from Dr. William A. Pearl, BPA administrator to Mr. John Kimball, vice president and general manager of the Idaho Power Co.

We have here set forth what is apparently the present proposal of the Department for the integration of Brownlee with the Bonneville Power Administration system. We would not repeat that now but we would call your attention to the fact that there is no mention of wheeling to preference customers either in southern Idaho or any other place in that letter that was dated April 1, 1958, and went to Mr. Kimball from Dr. Pearl.

The Department is now proposing two alternatives to the company as follows:

1. Equal 1 kilowatt-hour for 1 kilowatt-hour exchange of energy with Bonneville delivering to the company energy during the summer months to meet company peak loads and the company returning equivalent amounts of energy to meet Bonneville peak loads during the winter.

2. Equal 1 kilowatt-hour for kilowatt-hour exchange between August 1 and April 30, with purchase by the company during May, June, and July of such energy as is required for filling its reservoirs at 2½ mills per kilowatt-hour. Dr. Pearl's letter expressly rejects the concept of free energy to the company or energy at 1 mill per kilowatt-hour.

But no insistence on wheeling to preference customers is evidenced by Dr. Pearl's proposal of April 1, 1958.

It is evident that the position of the company with respect to the integration of its Brownlee project is carefully designed to take for the company most of the benefits to be derived from integrating its project with the Federal system, to deny wheeling service to preference customers, and to leave the Government with an empty sack.

If the interest of the Government with respect to allocation of benefits in the integration of the company's Snake River project with the Federal system is to be protected and if the rights to preference customers to a share of the benefits so derived are to be preserved, it is essential that the Department of the Interior assume a substantially firmer and more sophisticated position in negotiating with the company than has been evidenced on prior occasions.

In our opinion, these negotiations present an opportunity for the Department to achieve for its preference customers in southern Idaho and for the Harney Electric Cooperative at Burns, Oreg., the benefits of Federal power to which they are entitled and which have been lost to them by previous activities of the Department.

Let me again emphasize, at the risk of repetition, that the Department is under no obligation to contract for the integration of the Brownlee project with the Federal system. The burden is upon the

company, and the findings of the FPC examiner in studying feasibility of the company projects indicate that the power produced from them will be very substantially higher in cost than that produced on the Federal system.

The relative benefits conferred upon the Federal system by the integration of the Brownlee project will be far less than those realized by the company. The company is, pursuant to article 28 of the FPC order issuing its licenses, obliged to complete construction of its 190,000-kilowatt Oxbow unit not later than 1961 and to complete construction of its 350,000-kilowatt low Hells Canyon unit not later than 1964.

The present capability of the company's system is about 350,000 kilowatts. If it adds its three new Snake River plants to its system, as required by the license, its capability in 1964 will approach 1,100,000 kilowatts. The load forecast studies contained on page 7 of the committee print, prepared in connection with these hearings, and the findings of the FPC presiding examiner during proceedings on project Nos. 1971, 2132, and 2133—those are the three company projects—indicate that the company will be faced with the problem of marketing outside of its own system, large blocks of relatively high-cost hydro capacity and energy from these projects for several years.

It is my recollection that the FPC presiding examiner found that the power from these projects could not be absorbed by normal anticipated company use before 1957.

In our opinion, the Government should enter no further contract with the Idaho Power Co. which does not provide for the wheeling of Federal power to preference customers within Federal power-marketing agencies but which are unable to obtain direct service, and for the wheeling to preference customers in southern Idaho of additional firm power.

We deeply appreciate the opportunity to place the facts as we see them, and our contentions before this committee.

However, unless these hearings are to be little more than a debating exercise, it is imperative that the committee and its staff secure and exercise the privilege of reviewing, prior to execution, any contract for the integration of the Brownlee project with the Federal system in the Northwest.

We would far rather see no contract at all than another agreement in derogation of the rights of preference customers. And by that, Mr. Chairman, we mean wheeling.

Senator CHURCH. Mr. Robinson, were you present this morning when Dr. Pearl and other representatives of the Bonneville Power Authority testified?

Mr. ROBINSON. Yes, sir.

Senator CHURCH. I understand it to be your position that any agreement reached between the Bonneville Power Authority and the Idaho Power Co., respecting coordination as required under the FPC license, should also include a wheeling arrangement whereby power could be wheeled to preference customers in south-central Idaho; is that correct?

Mr. ROBINSON. South-central Idaho and one co-op in Oregon, which is very badly in need.

Senator CHURCH. It was my understanding this morning that the view of the Department of the Interior and the view of the Bonne-

ville Power Administration is that the coordination requirement in the license does not extend to wheeling, which will have to be negotiated separately and apart from the license.

Mr. ROBINSON. This is a matter of departmental policy. I don't suppose there is any requirement in the license or any other provision of law which requires the Department to use its position as operator of the largest power system in the Northwest to secure the rights of its preference customers. But it has done so in nearly every other section of the country.

Senator CHURCH. In essence, then, what you are saying is this: That you think, as a matter of good management, that the Bonneville Power Administration ought to deal with the Idaho Power Co. as the Idaho Power Co. would likely deal with it; that is, to make as good a bargain as it can in the public interest, and that such a bargain ought to entail a wheeling arrangement, if possible?

Mr. ROBINSON. Yes, sir. This should be an arm's-length bargaining in every sense of the word, and a long arm at that.

Senator CHURCH. Do you see anything in the license, or do you know anything about the existing law, that would prohibit or prevent or otherwise restrict the Bonneville Power Administration in attempting to include a wheeling arrangement in any contract made with the Idaho Power Co. pursuant to the license?

Mr. ROBINSON. Well, sir, unless the Bonneville Power Administration is governed by completely different regulations than are the other Department of the Interior marketing agencies, I can conceive of nothing in the law which would prevent that, no sir, because they have included in the marketing of power from other project's wheeling agreements.

You see, Mr. Chairman, it doesn't make any difference whether you are integrating a project like Brownlee with the Bonneville Power Administration or whether you are simply attempting to market power from a Federal project through a privately owned transmission system, as you do in the Southeast at the Clark Hill project in Georgia, for instance, power from which is marketed to the company and to preference customers through the company transmission system.

The only problem involved is: How do you divide the benefits up between the preference customers and the company? In this case, in arranging for the integration of the Brownlee project, the only question is can you get from the company benefits in the form of additional power on the Federal system and wheeling to the preference customers as concessions from the company. When you market power from a single Federal project through a company system there is no actual wheeling involved.

The power doesn't physically flow through the transmission lines. The company dispatches the project just like it was its own, and takes from its own generating station closest to the load power to supply it.

So, it is the same sort of problem here. It is just a matter of dividing the benefits. And we think that the position of the Department should be used to protect rights of the preference customers in getting their share of the benefits of the project.

Senator CHURCH. I understand. Apart from the propriety of including a wheeling agreement, if possible, in any contract agreed to between the Bonneville Power Administration and Idaho Power, I think it would be helpful to have your views with respect to the proposal made by the Bonneville Power Administration, the latest proposal made or offer made with respect to the interchange of electricity between the two systems.

You remember this morning that we had some extensive discussion of the finale or the latest proposal that had been made, though not as yet accepted by the Idaho Power Co. Have you any objections to that proposal that you would like to register with the committee?

Mr. ROBINSON. Sir, to answer a question of that type requires much more detailed knowledge of the two systems than I have been able to absorb since I started working on this problem. These are two separate systems. The Bonneville system is a rather complicated system, and the whole thing is a rather complicated problem. I would in no way want to set myself up as an expert on the kilowatt-for-kilowatt exchange basis between the two systems.

There are substantial benefits to be gained by the company; of that I am sure. And all we ask in return is that the preference customers be given a portion of the benefits to which they are entitled under the law resulting from the integration of the project and its two sister projects if they come into being with the Bonneville system.

Senator CHURCH. Just one final question. In connection with the wheeling arrangements that we have been discussing, that is, the wheeling arrangement that would be entailed if the Bureau system in southern Idaho and the Bonneville Power Administration in northern Washington and Montana were integrated, such a wheeling arrangement would entail payment to the Idaho Power Co., would it not, for the use of Idaho Power lines for the wheeling of power between the two systems?

Mr. ROBINSON. It might be done by monetary payment or it might be done by an exchange of power or energy favorable to the company in exchange for its agreement to wheel.

Senator CHURCH. In any case, it would be a compensatory agreement to the company for the use of its facilities?

Mr. ROBINSON. Yes, sir; of course.

Senator CHURCH. I have no further questions.

Mr. ELLIS. Mr. Chairman, may I make 1 or 2 brief statements?

One, I would like to call your attention to the fact that in Idaho as elsewhere the uses of wholesale power required by the Rural Electric Cooperative are growing very fast. Nationwide the rural electric systems are doubling their use of power about every 4½ to 5 years. The power industry as a whole, as you know, is the fastest growing major industry doubling about every 7½ to 10 years.

But the rural segment of that industry is growing faster than the industry as a whole is, partly because of a half century lag in getting started.

We are paying today, nationwide, about half a million dollars a day for wholesale power. We are paying the Federal Government $120,000 a day for wholesale power. This power in the river belonged to the people out there; it belonged to the people, period.

The concept of the Idaho Power Co., as all others, as you know, is that it is not a free enterprise as we normally think of it. The courts and the Congress and the legislatures have declared over and over again that instead it is a public service corporation. By any reasoning that I know, the people of southern Idaho are entitled to the benefits of that power one way or another. In my opinion there is an obligation on the part of the Bureau, on the part of the Bonneville Power Administration, on the part of the company, on the part of all Federal and State officials in anywise connected with it, to see that those benefits are delivered out to the people to whom they belong.

It is interesting that the preference clause, the rewriting of it, in the clearest form that we have it, in the general Flood Control Act of 1944, was done in the same year by the Congress and is a part of the same thinking obviously in the speeches, that is clear, as the passage of the Pace Act to provide the 2-percent loans to the rural systems, and as a part of the total concept the Congress and the REA, the Government lending agency, have required the Rural Electrification to serve everybody. We call it the area coverage in the loans. In the loan contracts it is written in that we do that, something else that was never done anywhere else in the world so far as we know insofar as rural areas are concerned.

It is usually written in some form into the franchise and convenience and necessity certificates of the power companies, but it is not lived up to by them in rural areas.

We are required to live up to it. We are having a great struggle to exist. And I think there is a moral obligation on the part of all of us, including the Congress, to see that these benefits are carried out. And unless this is done we can't be sure that the rural electrics will not fail in such areas as southern Idaho.

I have been out there, I have seen it. It is sparsely settled. They have many problems. I just want to leave this testimony with you in an appeal to you, all of you, to do the very best you can to help stop the Idaho Power Co.'s rape of resources in Idaho and in the Columbia River Basin.

Senator DWORSHAK. Mr. Chairman, could I ask a question?

Senator CHURCH. Senator Dworshak.

Senator DWORSHAK. Mr. Ellis, what part of the Idaho Power Co.'s power requirements today is being provided through REA-owned and operated facilities?

Mr. ELLIS. About 16 percent.

Senator DWORSHAK. Is there a growth in that development of power?

Mr. ELLIS. Yes.

Senator DWORSHAK. And——

Mr. ELLIS. Is there a percentagewise growth?

Senator DWORSHAK. Yes.

Mr. ELLIS. No. I think it has been about 15 or 16 percent for several years. We do keep adding units to existing plants. And once in awhile, but very rarely, do we ever get approved a new generation and transmission co-op. We have several applications pending. But the percentage is about the same.

Senator DWORSHAK. Why is that procedure followed in those areas? It not power available from either Federal or private plants to take care of those requirements?

Mr. ELLIS. Right. It is either that or the fact that they can generate it—the co-ops can generate it more cheaply than they can buy it from any other source. Usually our generation and transmission co-ops are in high power cost areas or in what we call "have not" areas so far as wholesale power supply is concerned.

Senator DWORSHAK. Is there cooperation generally on the part of private utilities in those areas in furnishing power to REA units?

Mr. ELLIS. Well, there have been some areas where they have either refused to serve enough—maybe they couldn't—or have refused to serve it at a price or under conditions that the co-ops could live with, and therefore they built their own. Unfortunately, much of the country does not lend itself to co-op generation because the units are naturally smaller.

Unless there is pretty large usage, pretty heavy concentration such as does not exist in southern Idaho, for instance, the co-ops have not found it feasible to generate their own.

Mr. Chairman, with your permission I shall submit a supplemental statement for the hearing record.

(Mr. Ellis subsequently submitted the following statement:)

SUPPLEMENTAL STATEMENT OF CLYDE T. ELLIS, GENERAL MANAGER, NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION

Mr. Chairman and gentlemen, my name is Clyde T. Ellis. I am general manager of the National Rural Electric Cooperative Association. I submit this supplemental statement, pursuant to permission granted by the chairman, for the purpose of supplying additional facts, and lending emphasis to several of the salient issues that have been developed during this investigation.

First of all, I want to reiterate the concern of the rural electric systems with the sordid, but not unusual, story of monopoly which has been revealed. It has been truthfully said that the rural electrics must have access to abundant quantities of reasonably priced wholesale power or they will die; for without assurance of adequate power, they would be unable to continue serving the farmers and rural people who, but for the REA program, would still be in darkness.

Rural people in the Snake River region in the Pacific Northwest and, indeed throughout the country, thus have a critical stake in development of our power resources and in a ready access to that power.

And the evidence adduced during these hearings clearly indicates that the rural electrics and other nonprofit utilities in southern Idaho and eastern Oregon are in critical danger of being starved to death for lack of low-cost power; a situation that is largely attributable to the arrogance of the Idaho Power Co. as it pursues its well-laid plans to seize control of the Middle Snake River and to obtain an absolute monopoly over the energy, economy, and political institutions of Idaho and eastern Oregon.

This attitude of arrogance was spotlighted by the refusal of the company to come before this committee and reveal such knowledge of the situation it might be in the best position to know.

The testimony of the witnesses who did come, however, establishes the following circumstances which the company apparently decided to not admit.

(1) The maneuvering to monopolize the Snake River resource even at the expense of wasting half of it.

(2) The unbending refusal to wheel power to preference customers—power to which they have a right under the law and which they must have to expand and grow.

(3) The unremitting and generally successful campaigns to wipe out rural electric cooperatives.

(4) The strange activities of the Department of the Interior to help the Idaho Power Co. achieve its dominance over the resources and the people of Idaho.

It is thus not surprising that the company officials found at the last moment that they were "too busy" to testify.

DOWNSTREAM BENEFITS

In negotiating for the integration of its Brownlee and Oxbow projects with the Northwest power pool, the Idaho Power Co. has taken the position that it is entitled to at least one-half, or between $1 and $2 million per year, of such incidental benefits as are conferred upon downstream Federal projects by Brownlee and Oxbow.

It is my understanding (although no copies were made available to the witnesses who previously appeared) that Senator Watkins has placed in the record a statement in support of the company's position in this matter.

There has, however, not been placed in the record, any calculation of the benefits that will accrue to the company's existing and planned Snake River projects from upstream regulation at the American Falls and Palisades Reservoirs of the Federal Government. And, although the Federal Power Act expressly provides for the appraisal of benefits conferred upon downstream privately owned projects by headwater reservoirs operated by the United States; and for the assessment against the downstream private operator of an amount equivalent to these benefits, I am not aware of any such charges having yet been paid by the Idaho Power Co. on its existing Snake River plants. Moreover, I have heard of no plans by which the company would pay such charges on its projects, existing, under construction, or planned.

Thus the Federal Power Act provides that investor-owned utility companies must pay for downstream benefits conferred upon them by Federal operation of headwater reservoir projects. But, nowhere does the law provide for a levy of charges against Federal projects for incidental benefits conferred upon them by privately owned and operated headwater reservoirs.

As a matter of fact, this subcommittee is well aware that the Congress has repeatedly rejected the attempts of investor-owned utility companies and the Federal Power Commission itself to write such authorization into the Federal Power Act.

In addition, let me again emphasize that the licensing of Brownlee, Oxbow, and Little Hells Canyon by the Federal Power Commission has deprived the Northwest of some 450,000 kilowatts of firm power and at least 2 million acre-feet of reservoir storage capacity.

How, under this combination of circumstances, any company or any person could assert a further claim on the natural resources of the region is beyond my imagination.

THE IDAHO POWER CO. AND PREFERENCE CUSTOMERS

In considering any additional dealings between the Idaho Power Co. and the Department of the Interior, let no one forget that this is the company which, as the record shows, will stop at nothing to preserve its monopoly position.

This is a company which prevented the formation of 1 rural electric cooperative, destroyed 3 others, attempted to destroy a fourth, and has made preliminary overtures toward destroying 2 additional cooperative systems.

Only last summer, the company approached an attorney for the Raft River Electric Cooperative of Malta, Idaho. The company had sought to sell him and the board of directors on the idea of letting the company go over all the co-op's books and papers as part of a "study." The ostensible purpose of this "study" was to help solve the problems of the co-op. The real object was to determine at what price the company would be willing to buy out the cooperative system.

At the time this "offer" was being made at least two significant things happened.

(1) One of the company directors in a moment of frankness told what kind of area coverage service the rural people there could expect if the company took over. He was quoted as saying, "This company will build no more lines into sagebrush to serve those kind of people." The co-op, however, is under a mandate from REA and the Congress to bring electric service even to the most thinly populated areas.

(2) For 14 months the company refused to quote the Raft River Cooperative a wholesale rate so it could bring central station electric service into unserved areas of northern Nevada. During those 14 months, the company itself went into that area, bringing service to the lucrative loads and leaving the lesser farms and ranches without service. This is the familiar cream-skimming process which makes it impossible for the electric cooperative to ever serve the area.

This is the company which during 1957 purchased 100 million kilowatt-hours of energy from the Bonneville Power Administration at 2½ mills per kilowatt-hour and 144.6 million kilowatt-hours from the Bureau of Reclamation at 1.7 mills per kilowatt-hour. Yet at the very same time the company refuses to wheel any additional power to the preference customers in southern Idaho or to the Harney Electric Cooperative at Burns, Oreg. Instead, it "generously" sells "private" power to the Harney Co-op at 9.4 mills and looks forward to buying it out in the not far distant future.

THE HARNEY ELECTRIC CO-OP

The Harney Electric Cooperative at Burns, Oreg., is the newest rural electric distribution system in the country. It is located in eastern Oregon about 126 miles from the nearest Bonneville Power Administration transmission facility. For several years Bonneville has refused to build a transmission line to serve the cooperative because, according to the Government (and this is a matter now at issue) the cooperative load is not large enough nor growing rapidly enough to justify the extension of transmission facilities to serve it.

This leaves the co-op at the mercy of the company. The cooperative is being forced to purchase wholesale power from the Idaho Power Co. at 9.4 mills per kilowatt-hour. Moreover, the cooperative's wholesale power contract with the company contains a restrictive maximum demand provision of 2,000 kilowatts which is about all the company transmission line can carry.

Despite the usual governmental conservative pessimism, the record shows that the cooperative load is growing very rapidly and will probably outstrip its contract rate of delivery prior to the 1960 contract expiration date.

There is no question what the company is working toward—another sellout. At the co-ops last annual meeting, no less than four company officials came to extend their "friendly" hand. They even asked to show one of the power company propaganda movies. Permission to show the picture was denied, but the cooperative manager is of the firm opinion that it is only a question of the time until the company makes it first overt move toward buying out the Harney Electric Cooperative.

The Harney Electric Cooperative is within the recognized service area of the Bonneville Power Administration. The Government, pursuant to the Bonneville Act, is under a mandate to serve it with wholesale power. This could be accomplished in two ways:

(1) Bonneville could seek construction appropirations to build a 126-mile, 115-kilovolt line from its Redmond substation to the cooperative; or

(2) The line could be constructed with funds borrowed from the Rural Electrification Administration, and leased to Bonneville during its amortization period. Bonneville has so far rejected both alternatives.

The Department of the Interior so far has refused to request appropriations for construction of the necessary transmission line on the ground that studies of the cooperative loads do not warrant it. And, on the other hand, the Bonneville Power Administration refuses to negotiate for the leasing of an REA-financed line on the ground that it does not have the authority to so do.

However, there are precedents for both courses.

Ample precedent exists for the construction of the line by Bonneville. On several prior occasions, BPA lines have been built to serve marginal loads and in each case subsequent availability of low-cost power has stimulated load growth to the extent that the question of line feasibility soon became moot.

There is also ample precedent, and authority in the Bonneville Act, for the lease by Bonneville of facilities constructed and owned by other entities where such facilities are being used for the delivery of Federal power to preference customers.

One recent instance in which the lease arrangement was used as a vehicle for the delivery of Federal power is revealed in the final report and order of the Federal Power Commission in Dockets No. E–6777 and E–6778 issued April 24, 1958, authorizing the Bonneville Power Administration to lease a transmission line recently acquired from the California-Oregon Power Co. by the Pacific Power & Light Co. and used for the delivery of Federal power.

There obviously are other reasons for refusal to help the cooperative and the committee ought to continue its search for them.

May we again urge that this committee drive forward with this work even though these hearings may be concluded. There is great need for its members and its staff to continue to work toward a solution of the power supply prob-

lems of the preference customers in southern Idaho and the Harney Electric Cooperative of Burns, Oreg.

Negotiations between the Department of the Interior and the Idaho Power Co. concerning the integration of the Brownlee project with the Northwest power pool affords the Department an excellent opportunity to obtain for its preference customers a reasonable portion of the benefits of Federal power that have been and are being conferred upon the company by the Government.

Senator CHURCH. Thank you very much, Mr. Ellis, and thank you, Mr. Robinson.

Our next witness is Mr. Ed Schlender, manager of the Raft River Cooperative at Malta, Idaho. He is also secretary of the Snake River Power Association.

STATEMENT OF ED SCHLENDER, MANAGER OF THE RAFT RIVER RURAL ELECTRIC CO-OP ASSOCIATION, MALTA, IDAHO, AND SECRETARY OF THE SNAKE RIVER POWER ASSOCIATION; ACCOMPANIED BY RAY RIGBY, GENERAL COUNSEL; AND M. M. HINTZE, VICE PRESIDENT, SNAKE RIVER POWER ASSOCIATION; WILLIAM TROMMERSHAUSEN, OF R. W. BECK & ASSOCIATES, CONSULTING ENGINEERS; E. W. ROBERTS, MANAGER, FALL RIVER ELECTRIC CO-OP, ASHTON, IDAHO; E. H. PASKETT, PRESIDENT, BOARD OF DIRECTORS, RAFT RIVER ELECTRIC CO-OP, MALTA, IDAHO; AND A. M. KASSEN, MANAGER, LOST RIVER ELECTRIC CO-OP, MACKAY, IDAHO

Mr. SCHLENDER. For the sake of brevity, I would like to ask that members of the group who accompany me here be allowed to sit up here as a panel. We have designated only about two of us as spokesmen. The rest you may call on for any questions. I would like to be permitted to introduce those people and their affiliations.

Senator CHURCH. We have a rollcall vote. Would you introduce, for the purpose of the record, the various members of the delegation here from Idaho so that the record will be complete, and then commence your statement?

Mr. Mapes will be in charge until I return. I will be back as soon as possible.

Mr. SCHLENDER. Thank you.

Mr. Chairman, I would like to have appear with me Mr. Ray Rigby who is the Snake River Power Association attorney, of Rexburg, Idaho; and I would like to have Mr. Mel Hintze, who is the vice president of the Snake River Power Association. Mr. Hintze is from Mackay.

Mr. William Trommershausen, of R. W. Beck & Associates, of Seattle, who is our engineering consulting firm.

Mr. E. W. Roberts, who is the manager of the Fall River Electric Co-op from Ashton, Idaho.

Mr. E. H. Paskett, who is the president of the board of directors of the Raft River Electric Co-op, from Malta.

Mr. Al Kassen, who is the manager of the Lost River Electric Co-op at Mackay.

Mr. MAPES. We are very glad to have all you gentlemen here this afternoon.

As spokesman for the group, would you prefer to commence with your statement? Senator Church will be back in 10 or 15 minutes.

Mr. SCHLENDER. I believe that he indicated that we could proceed.

Mr. MAPES. Why don't you just go ahead.

Mr. SCHLENDER. I don't have a prepared statement. I only have notes from which I wish to talk.

My name is Edwin C. Schlender, manager of the Raft River Electric Cooperative, and I am secretary and treasurer of the Snake River Power Association, and it is in the latter capacity in which I wish to appear before this committee.

We are here in the interest of our consumer members who are desperately in need of an increase in wholesale power supply at a reasonable rate in the area which we represent.

We believe it is important to this committee, in studying the operations of the Idaho Power Co., as related to the required coordination of the Brownlee and Oxbow Dams with the Northwest power pool, that if such coordination is accomplished it could, and reasonably should, alleviate the power shortage in southern Idaho with respect to public power users and with profitable gain for everyone involved.

I believe that for the record I should tell you a little bit about the Snake River Power Association since it is rather a new firm and has taken on a new job, I might say.

The Snake River Power Association sprang originally from the Southern Idaho Power Users Association which was an informal group that first met and was instigated to meet around Burley, around 1954. They had long negotiations with the Bureau to try and solve this power shortage for the co-ops and mutuals represented in that area by them, but as an informal group did not get very far. So we formed from that group the Snake River Power Association and changed its name. We formed it in October 1956.

The membership of the Snake River Power Association, which is organized along the lines of a generating and transmission cooperative, is as follows: The Fall River Electric Cooperative, from Ashton, Idaho; the Lost River Electric Cooperative, from Mackay, Idaho; the Salmon River Electric Cooperative from Challis, Idaho; the Lower Valley Power & Light Association, of Afton, Wyo.; the Raft River Electric Cooperative, Malta, Idaho; Rural Electric Cooperative, Rupert, Idaho; Village of Albion, Albion, Idaho; Walcott Electric Mutual, Rupert, Idaho; Wendover Light & Power, Wendover, Utah; the Westside Electric Irrigation Pumping Association, Idaho Falls.

Memberships now pending before us are: Milner Low Lift Irrigation District, Burley, Idaho; Southside Electric Mutual, Declo, Idaho; East End Electric Co., Rupert, Idaho; Farmers Electric Co., Rupert, Idaho; and the city of Idaho Falls, Idaho Falls, Idaho.

These memberships are pending. They give us support and have it before their groups to take out membership and the procedure hasn't as yet been able to effectuate those members.

So we represent about 18,000 members in the Snake River whom we are talking for, in the Snake River Power Association.

First of all, let me say that I think we realize that we will have to confine ourselves to the fact here that we must deal with the Bureau of Reclamation because we buy all of our power—all of us, I think, at the present time, buy all of our power from the United States Bureau of Reclamation, so they are our wholesale power supplier.

We have had a longtime need for this power. The need was first recognized about 1953 that some of us were running short, and it was in 1954 that the Bureau of Reclamation told us that they had no power, no more power, and that we must find a power source outside of their system.

For most of us that meant that the only other supplier was the Idaho Power Co. Especially in the Minidoka area there is no other supplier but the Idaho Power Co. I might say that the whole problem, as purports to this power shortage in southern Idaho to the public power users, was very well brought out in Idaho Falls in 1955 at the Chudoff committee hearings there. It was the conclusion of that committee that there was quite a bit of unfairness in the matter that the co-ops have not been able to receive their power, but there has not been anything done about it as a result of those hearings as yet.

We are not able to buy Idaho Co. power to supplement our supply for two reasons: First of all, most of the 16 users in the Minidoka area are an integrated system with the Bureau, and it is almost impossible to meter and serve each one of them separately because they are all served through the Bureau's facilities from one point.

Secondly, the Idaho Co. power was too high. We could not pay more than twice the amount that we were paying for power at that time in the Bureau, and stay in business with them since Idaho Power Co. is competitive with us and sells to their retail consumers in our competitive area for, in some of the member cases, about half the price, retail, that they asked for us wholesale. So you can see we could not buy that power from the Idaho Power Co.

Mr. MAPES. Are you saying that you have not been able to acquire any additional power since 1955?

Mr. SCHLENDER. We have some additions since 1955, yes. The Bureau brought in their Palisades plant in 1957, and we got a small block of power from that. But several of our members are over their contracts from that amount at the present time; considerably over.

At the earliest point when the Bureau of Reclamation told us that we would have to buy our power from Idaho Power to supplement our contracts with the Bureau, at the same time, in the same letter that they told us that we had to buy our power from Idaho Power, they also told us in effect that Idaho Power didn't have any power to sell.

We wondered a little bit about that. So the members of the Southern Idaho Power Association, still in effect at that time, objected—I am going back into the history here to show you what has happened to us and to try to bring you up to date to where we stand today. I think this has a bearing on the wheeling of power and interchange of power between the Bureau and the Idaho Power Co.

We knew that although the Bureau said they had no power, they did have huge blocks of secondary which was only available to the power companies. They told us we could not have it because we had no thermal generation to back it up.

However, the Idaho Power Co. has no thermal generation, either, but they get large blocks of this secondary.

All of the Bureau plants from which we buy our power are captive to the Idaho Power Co. in transmitting their power between each other, so there is no integration of the Bureau's powerplants to take advantage of the diversity of our contracts with the Bureau or of the loads of our members with the Bureau.

So we believe that they shouldn't take into account this diversity and they could supply us for a little bit longer.

On June 24, 1955, the Bureau again informed us that they had no utility responsibility; that they didn't have any more power for us; and that they couldn't buy any power to supplement the resources that they had; that they could not act as power brokers. However, I think it was established as a conclusion again of the Chudoff committee in 1955 that the Bureau did have utility responsibility in that area.

We met many times with the Bureau as a group, and early in 1955 we met with the Bureau in which they were going to present a way for us to get some supplemental power. Then at that time they brought with them to this meeting, which I think was probably 65 or 70 people interested in whether they were going to get their power. There people were all officials of different distributing companies—and there again the Idaho Power Co. was not present.

The Bureau presented the Idaho Power contracts to us and tried to sell them to us. But we declined those contracts because we didn't believe that we could afford to buy that power on that basis.

So we made a different approach on July 9, 1955; we agreed with the Bureau of Reclamation that if they would obtain the power to serve our systems we would reimburse them for their out-of-pocket expense for what power they had to buy to put into this system to service it on a basis whereby we would pay them through the irrigation system, which is our heavy load period, a 15 percent surcharge on the dollar basis of the amount of our billings from April through October.

The agreement was that when the end of the season came around and they summed everything up, if we had paid them too much they would return the balance; if we hadn't paid them enough we would be billed for the rest.

As a result, the 16 systems on the Minidoka project paid the Bureau of Reclamation some $52,000 in surcharges for our 1956 summer power. We have to place no other interpretation on this surcharge than it was a tribute to the Idaho Power Co. because of contractual agreements that they have with the Bureau, because the very power that we bought was Bureau power.

All that happened was that the Idaho Power Co. transmitted it from 1 project to another, a distance of some 70 or 75 miles. To further that opinion we can only interpret that we paid this in tribute to the Idaho Power Co. for no good reason that we could see. It was established right here in this room about a year ago at the Senate hearing on the Hells Canyon bill—which I believe was 555—that a member, the Chief of the Bureau of the Power Division, admitted before this hearing that while we were buying 7-mill power from the Bureau and paying our 15 percent penalty, they were selling power 75 miles away to the Idaho Power Co. for 1 mill.

Mr. MAPES. Would that additional expense be justified as a wheeling charge in any way?

Mr. SCHLENDER. Hardly. Perhaps 1 mill per kilowatt-hour might have been justified as a wheeling charge. That would be all.

As I stated before, we have no objection to buying our extra power requirements over and above what the Bureau can furnish from the

Idaho Power Co. if we can buy it at a price we can afford to pay. But in negotiation with them at this time they still wanted 13 mills while they were selling it competitively around our areas at retail for about half of that amount.

Senator CHURCH. Having just returned from the floor, and having not had the benefit of the first part of your testimony: What do you buy your power from the Bureau of Reclamation for?

Mr. SCHLENDER. It averages about 5½ mills per kilowatt-hour.

Senator CHURCH. When you were negotiating with the Idaho Power Co. to buy additional power to meet your divisional needs, what offer did the Idaho Power Co. make with respect to rates?

Mr. SCHLENDER. The one particular company, Raft River Electric, has done the most negotiating and diligently tried to buy their additional power because they are the worst off of all the members in that area, and the price they offered us was approximately 13 mills per kilowatt-hour.

Senator CHURCH. Approximately 13 mills as against 5.5?

Mr. SCHLENDER. Yes.

Senator CHURCH. The power that you buy from the Bureau, a part of it is generated at Anderson Ranch Dam; is that correct?

Mr. SCHLENDER. That is right.

Senator CHURCH. That, of course, is a Federal dam. What are the other sources of this power?

Mr. SCHLENDER. There are about 26,000 kilowatts of capacity installed at Minidoka Dam. However, we don't have access to all that. The Bureau uses some of that on their own projects, their own company projects. And then there is available to us a small block of power. I think 14,000 kilowatts are allotted to the Minidoka area out of the Palisades project.

Senator CHURCH. So that the principal dams furnishing this power are the Palisades Dam, the Anderson Ranch Dam, and the Minidoka Dam?

Mr. SCHLENDER. That is correct.

Senator CHURCH. As to the power that comes from the Anderson Ranch Dam, that comes to you over Idaho Power transmission lines, does it not?

Mr. SCHLENDER. That is right.

Senator CHURCH. And it comes to you pursuant to a wheeling arrangement between the Bureau of Reclamation and the Idaho Power Co., does it not?

Mr. SCHLENDER. Correct.

Senator CHURCH. Do you know what charge the Idaho Power Co. makes for wheeling this power over its lines from the Anderson Ranch Dam?

Mr. SCHLENDER. I would like to refer that question to Mr. Trommershausen. He has studied these individual contracts.

Senator CHURCH. Could you give us an answer to that, Mr. Trommershausen?

Mr. TROMMERSHAUSEN. Yes, sir. The agreement covering Minidoka-Boise diversion and Anderson Ranch averages about a mill a kilowatt-hour.

The contract states specifically in a tabulation which I will find shortly——

Senator CHURCH. That is a wheeling arrangement involving the wheeling of public power generated at Boise diversion, Minidoka and Anderson Ranch over the private utility lines, and you say that the rate charged by the Idaho Power Co. is approximately 1 mill per kilowatt-hour?

Mr. TROMMERSHAUSEN. I would say that is an average for wheeling; yes. Both for this group and to the Government's own pumping units.

Senator CHURCH. With respect to the power that is derived from Palisades, that also comes to you over Idaho Power Co. transmission lines?

Mr. SCHLENDER. Yes, sir.

Senator CHURCH. Also, pursuant to a wheeling arrangement between the Idaho Power Co. and the Bureau?

Mr. SCHLENDER. Yes.

Senator CHURCH. Tell me what the wheeling charge is with respect to that particular agreement?

Mr. TROMMERSHAUSEN. Yes, sir; and I just found this other group. For the north-south line through Glenns Ferry it is a mill per kilowatt-hour, and for all points east of Glenns Ferry it is a mill and a half per kilowatt-hour. For Northside pumping wells it is 2.3 mills per kilowatt-hour.

And on the Palisades project——

Senator CHURCH. For the Northside pumping units it is 2.3 mills?

Mr. TROMMERSHAUSEN. That is right. And I believe it is fair to say that the Palisades will average about a mill.

Senator CHURCH. And the Palisades will average about 1 mill per kilowatt-hour?

Mr. TROMMERSHAUSEN. From Palisades to Minidoka. I could prepare an exhibit for the committee and take a summary from the contract and provide it.

Senator CHURCH. I think it might be helpful inasmuch as one of the things we have in mind is the desirability of a wheeling arrangement that would connect these two systems. I think some basis of comparison as to what the Idaho Power Co. is presently charging for wheeling on its transmission system inside Idaho would be relevant and helpful.

I would appreciate if you would prepare that and submit it to the committee.

(Mr. Trommershausen subsequently submitted the following excerpt from a Bureau of Reclamation-Idaho Power Co. contract for the record:)

CONTRACT BETWEEN UNITED STATES BUREAU OF RECLAMATION (SOUTHERN IDAHO) AND IDAHO POWER COMPANY, DATED DECEMBER 15, 1956, FOR MINIDOKA, BOISE DIVERSION AND ANDERSON RANCH PROJECTS

Symbol and Number 174R-1506

WHEELING COSTS CHARGED BY IDAHO POWER COMPANY

* * * * * * *

Section 13—PAYMENT:

(a) * * *

(b) The United States shall pay to the Company for the transfer and delivery of power and energy by means of the Company's interconnected system, for each kilowatt-hour delivered as provided in article 11 hereof measured at the point of delivery as follows:

(1) For the transfer and delivery of power and energy to loads with delivery points west of a north-south line through Glenns Ferry, Idaho, $0.001 per kilowatt-hour.

(2) For the transfer and delivery of power and energy to loads with delivery points east of the Glenns Ferry line, $0.0015 per kilowatt-hour.

(3) In addition to the charges under paragraphs (1) or (2) above and except as otherwise agreed in writing, in those instances in which loads coming within the provisions of subarticle 11 (c) require service over lines of the Company having a voltage of less than 44,000 volts, an additional charge of $0.0023 per kilowatt-hour; provided, however, that this paragraph shall not apply to service to the ten (10) North Side Pumping Division wells as covered in paragraph (4) below.

(4) In addition to the charges under paragraph (2) above, an additional charge of $0.002 per kilowatt-hour shall be made for the delivery of power and energy at pump voltage for the ten (10) wells on the North Side Pumping Division of the Minidoka Project as provided in subarticle 11 (c).

CONTRACT BETWEEN UNITED STATES BUREAU OF RECLAMATION (SOUTHERN IDAHO) AND IDAHO POWER COMPANY, DATED APRIL 10, 1956, FOR PALISADES PROJECT

Contract No. 14-06-100-926

WHEELING COSTS CHARGED BY IDAHO POWER COMPANY

* * * * * * *

Section 12—PAYMENT FOR USE OF COMPANY'S FACILITIES:

(a) The United States shall compensate the Company for the use of its facilities to effectuate the delivery of electric power and energy to the loads of the United States at the rates shown in column (1) of the following table for each kilowatt-hour so delivered, exclusive of energy furnished to cover losses in transmission over the Company's power system:

	(1) *Rate Including Ad Valorem Tax Mills per Kilowatt-hour*
North Side Pumping Division of the Minidoka Project:	
Unit A pumping plant	1.12
Well and Relift pumps (34.5 kv) and (2.4 kv if transformation to 2.4 kv is furnished by the United States)	2.04
Well and Relift pumps (12.5 kv and under)	3.04
Michaud Flats Project:	
Main pumping plant	1.12
Well and Relift pumps	2.04
Ft. Hall Project: Company's Don Substation	1.12
Minidoka Project Power System:	
Minidoka Powerplant Heyburn Substation	1.12
Milner Low Lift Irrigation District: Minidoka Powerplant	1.12

(b) To the extent and in the amounts that the ad valorem taxes are ordered by the Public Utilities Commission or other agency of the State of Idaho to be refunded by the Company under the laws of the State to qualified pumping power users, the Company shall make refunds thereof to the pumping customers of the United States specified in Subarticle 12 (a) in accordance with data as to each customer's demand and energy use to be supplied by the United States.

Senator CHURCH. I didn't mean to interrupt your testimony, Mr. Schlender. I just wanted to clarify those points.

Mr. SCHLENDER. The point I wanted to clarify that I think might be misinterpreted: In giving this chronological buildup, as it were, I want to state that this 13-mill price was at this time, at this point, 1956–57. At the present time a better price has been negotiated with Idaho Power but it is still 10 mills, which I consider is too high.

Senator CHURCH. May I ask, Mr. Schlender, with respect to the average price for public power of 5.5 mills, does that include the wheeling charge? Or do you pay in addition the 1 mill for wheeling or the 1½ mill per kilowatt-hour, or does that 5.5 mills cover both the payment to the Government for the power and also the charge made by the Idaho Power Co. for wheeling?

Mr. SCHLENDER. This varies, I believe. For the Minidoka project the post for power from the Bureau includes the Bureau's wheeling costs. Even then they have different suppliers. It will vary. I believe Rural Electric, their cost is slightly over 6 mills.

In the upper area, the eastern upper area of our Snake River area, some of our other cooperatives such as Fall River and Lost River, is another wheeling charge. What their total cost for power is I couldn't say. We would ask Mr. Roberts or Mr. Kaasen what their cost for power is.

Mr. ROBERTS. On Palisades power they cost 1 mill for the first 50 miles, and that is on the Utah Power & Light line, and 1-50th of a mill for each mile over that. And the Bureau includes 1 mill wheeling with the rate, and the co-ops pay the difference.

Senator CHURCH. In other words, the charge made by the Bureau in your case includes the wheeling charge?

Mr. ROBERTS. One mill of the wheeling.

Senator CHURCH. It includes 1 mill of the wheeling?

Mr. ROBERTS. Yes.

Senator CHURCH. So this arrangement will differ from co-op to co-op?

Mr. ROBERTS. That is right.

Senator DWORSHAK. What are you paying for Palisades power to the Government?

Mr. ROBERTS. Our cost is 5.2. That includes demand charge and all.

Senator DWORSHAK. Does that include the 1 mill for transmission?

Mr. ROBERTS. Right.

Mr. SCHLENDER. The other objection we have to buying power from the Idaho Power Co. is that, as I pointed out here before, it is the Bureau's own power that we are buying. We don't think we should have to have the Idaho Power Co. act as a broker on power simply because they have the transmission lines.

We simply felt, by about this period in our negotiations for power with the Bureau and some of the members of Idaho Power Co., that we were getting nowhere. We felt, to just state it bluntly, that especially in my own case, speaking for the Raft Electric, where we have done most of our negotiations, that as far as the officials are concerned, of the Bureau of Reclamation and the Department of the Interior, all we were getting was a big runaround. We just didn't get any good answers.

For instance, there is a project, a United States Government project, at American Falls, which is only about 15 miles from the Raft River Electric Cooperative lines: At this dam there are penstocks built in the dam, but there are no powerhouses that belong to the Government.

Penstocks are blocked off. Only last July 7, 1957, when the load of the Raft Electric was great and the Bureau was telling us we

would have to get some other power, that we were darned lucky we didn't have the switch pulled on us, there was 170,000 horsepower of water falling over the dam going to waste, according to my calculations taken from figures that were given to me by the State watermaster, and from the Bureau's own design in their late report on their studies of the possible power development at American Falls. That dam still stands there like that.

We have agitated for the completion of that project, and we were told by the Bureau that we had never given any public support to have the project completed, therefore it had never gotten past the Appropriation Committee here in the Congress.

We told them at that time that we would give them plenty of support; that we needed the power and that we were organizing and would give them the support. They said they would support us if we would ask for it. Consequently, a meeting was called in Burley early in the summer of 1957, about a year ago this time. We conferred with the Bureau before the meeting was called and they told us it was a good project; that it would produce power at the time we needed it; that the project was feasible; and that it should be built; and that the Bureau would support us in taking water rights that belonged to them in the American Falls because Idaho Power has some water rights in there and there was a dispute over them.

They said they know what their rights were and they would stand up for them. So we called this meeting in Burley and we had some 65 or 70 people there again representing these various organizations in the Snake River power group, and when the meeting was called the Bureau in effect told them it was no good; the project was no good; it was doubtful that it was feasible; that it shouldn't be built at this time; that it didn't produce enough winter power due to the fact that Idaho Power has a contract limiting the United States Bureau of Reclamation to 10,000 kilowatts of production at American Falls, and the Minidoka site. That contract had been standing since 1923.

So the meeting turned out to have no effect for the development of American Falls, at least at that time. They said that it might interfere with the development of the Burns Creek project which we all earnestly desire to see completed because we need that power in the worst way.

As far as the Burns Creek project is concerned, notwithstanding the fact that the Utah Power & Light Co. has testified in the House, I understand, that they don't want to see it built because it is in their territory where they have plenty of power and there is no necessity for any more power to be developed in that area. We don't consider that this testimony by the Utah Power & Light had any bearing on it because we, the 16 Minidoka users, are not in the Utah Power Co.'s territory at all. We are desperately in need of power, and we have power available to us, that would be available to us at Burns Creek through the Bureau of Reclamation agreements.

Senator DWORSHAK. Of course you know, Mr. Schlender, that the Senate has approved the authorization at Burns Creek Dam.

Mr. SCHLENDER. Yes; I am very happy they have. And I hope the House does, too.

Senator DWORSHAK. While you are talking about that conference which was held at Burley in 1957, it is my recollection that Harold Nelson, manager of the Boise regional office, Bureau of Reclamation, also testified that if the dam were built—and I don't question whether or not it would be feasible; I haven't checked carefully enough over it—is it not true that Mr. Nelson testified that if the dam were built that the northside Minidoka extension, with veteran homesteaders under the law, has preferential rights to use of that power?

Mr. SCHLENDER. If the dam were built? Which project?

Senator DWORSHAK. At American Falls.

Mr. SCHLENDER. Do you mean if the powerhouses were built?

Senator DWORSHAK. Yes.

Mr. SCHLENDER. The dam is there.

Senator DWORSHAK. You talk about the possibility of expanding the power generation there. It is my recollection that Mr. Nelson testified in that way. Did he or did he not, do you recall?

Mr. SCHLENDER. I don't recall that he did, although he might have made some reference to that, because the homesteaders on the northside do have preference rights to the United States Bureau of Reclamation power.

Senator DWORSHAK. So if they wanted the power generated there, at the Federal plant, they were entitled to it under the law?

Mr. SCHLENDER. They probably would be. However, they are using Bureau of Reclamation power at the present time, and if they took the American Falls power they would then release a like amount of power.

Senator DWORSHAK. At Palisades?

Mr. SCHLENDER. Somewhere else in the system.

Senator DWORSHAK. At Palisades probably.

Mr. SCHLENDER. It couldn't be at Palisades because the Bureau contract limits the Idaho Power to wheel away only as much power as they are now wheeling from there.

Senator DWORSHAK. Under the law the customers have the right to that power at Palisades?

Mr. SCHLENDER. We have a right to it but we cannot get it simply because the power company has agreed to wheel as much as we are now getting, and the contract on Palisades is not subject to reopening on the wheeling agreement.

So we have had long negotiations with the Bureau with no results. During this time various members of the group and the group itself had called on Bonneville Power Administration for help, but Bonneville informed us that they could do nothing for us, that we were out of their market area, and that we were customers of the Bureau and to get any power over to us would require wheeling through Idaho Power Co.'s lines and that they were powerless to require that; they were powerless to get it over there.

The Bureau, however, knew of our needs even in 1955, when the Bonneville and Idaho Power Co. effectuated their power exchange agreement, and they made no effort, so far as we know, at least no results, to get any power wheeled in to us from Bonneville system.

In fact, the Bureau of Reclamation at Boise informed Bonneville that they didn't need any power, that they had plenty of power to serve their customers in southern Idaho.

I have a copy of the letter of March 14, 1957, from Dr. Pearl in which he made that statement.

Senator DWORSHAK. What is the date of that letter?

Mr. SCHLENDER. March 14, 1957.

Senator CHURCH. Will you supply a copy of that letter for the record?

Mr. SCHLENDER. I could. I can read it to you right now if you would like.

Senator CHURCH. Would you care to have it read now, Senator, or just supplied for the record?

Senator DWORSHAK. Supply it for the record.

Senator CHURCH. For my purposes supplying the letter for the record would suffice.

Mr. SCHLENDER. I will make a note of that.

(See correspondence supplied by Mr. Schlender at p. 191.)

Mr. SCHLENDER. However, at this time I must say that the Bonneville Power Administration did try to get some power over there for us, because on page 1656 of the Chudoff hearings—the committee hearings at Idaho Falls—Dr. Pearl was questioned if he had approached the Idaho Power Co. to effectuate some wheeling in southern Idaho, and he said he had. He was asked if Idaho Power Co. were willing to wheel, and he said they had said "No."

So, Bonneville Power Administration did try.

We found we were getting nowhere in 1957, in July, and retained R. W. Beck & Associates as engineering consultants to study the Bureau of Reclamation's power pool and the Idaho Power Co.'s power pool as the Bureau is related to it, as the first step to find what the capabilities of that pool were so that we would know what to do about our power supply ourselves. In fact, we had been told by the Bureau before that that was the only way we could probably solve our problem, was to get together and see what we could do as a group.

At the outset R. W. Beck & Associates engineers found when they went to examine the United States Bureau's records and system they found that it was a little difficult to assemble the data, but they did come up with a study which we have which showed that there were at least 15,000 kilowatts of seasonal power to fit our power needs, there was available in the Bureau system, that would be there except for a small period in the fall of 1 year out of 22.

Senator CHURCH. Let me get that clear. On the basis of the study made by your retained engineers, they submitted a preliminary report on October 23, 1957; is that correct?

Mr. SCHLENDER. Yes, sir.

Senator CHURCH. Is this the report?

Mr. SCHLENDER. That is the report.

Senator CHURCH. Do you have any objection to this report being incorporated in the record and made a part of the record of these proceedings?

Mr. SCHLENDER. Well, I see no objection; no. It is rather lengthy. Mr. Trommershausen is the other spokesman who would like to go into this in a little detail with you.

Senator CHURCH. I think particularly if testimony is going to be given here this afternoon that relates to this report, for purposes

of having an accurate picture the report itself ought to be made a part of the record.

Mr. SCHLENDER. Yes, sir.

(The report is as follows:)

PRELIMINARY REPORT

AVAILABILITY OF SECONDARY ENERGY FROM THE UNITED STATES BUREAU OF RECLAMATION FOR SNAKE RIVER POWER ASSOCIATION, OCTOBER 23, 1957

R. W. BECK & ASSOCIATES,
Seattle, Wash., October 23, 1957.

Re preliminary report on availability of secondary energy from the United States Bureau of Reclamation.

SNAKE RIVER POWER ASSOCIATION,
Rupert, Idaho.

GENTLEMEN: Pursuant to your request of July 12, 1957, we have undertaken studies and analyses concerning the power supply situation in southern Idaho as it affects the members of the Snake River Power Association (hereinafter called the association) under existing power purchase contracts with the United States Bureau of Reclamation (hereinafter referred to as the USBR). We were instructed to review such power supply data as could be obtained from the USBR and submit in a letter a report, our evaluation of the following:

(1) Amount of summer secondary energy that is available and may be justifiably used for service to the pumping loads served by members of the association.

(2) The amount of firming that may reasonably be required to make additional quantities of federally generated secondary energy available to the association for pumping use.

(3) The amount of secondary and dump energy that may be available to the association for fuel displacement in fuel-fired generating plants currently under consideration by the association.

We were also instructed to review the existing power sales, interchange and wheeling agreements between the Bureau of Reclamation and the Idaho Power Co., to determine the manner in which secondary energy may be delivered to members of the association by the USBR.

Conferences have been held with the technical staff of the USBR at Boise, Idaho, and substantial data were obtained and used as a basis for our studies.

Our report, which follows in three sections, contains a summary of our findings and recommendations in the final section of the report.

It is noted that some additional studies may be necessary in the near future, concerning alternate methods of providing for a supplemental power supply for the members of the association. We would appreciate an opportuity to work with your association on such future studies.

Respectfully submitted.

R. W. BECK & ASSOCIATES.

SECTION I. POWER CONTRACTS RELATING TO POWER SUPPLY TO MEMBERS OF ASSSOCIATION

GENERAL

At the present time, the cooperatives and other public agencies comprising the association purchase their power requirements from the USBR under contracts having varying terms, rates, and other basic conditions. The USBR does not own and operate a transmission network in southern Idaho, but depends quite substantially on wheeling agreements with the Idaho Power Co. and the Utah Power & Light Co. to market the firm power output of the Federal generating plants in southern Idaho. The basic wheeling agreements currently in effect have been reviewed with the object of determining, to the extent possible, without obtaining a legal interpretation of specific contract provisions, the basis upon which power and energy, both firm and secondary, now being sold to both companies could be withdrawn by the USBR and sold to the preference customers pursuant to the provisions of the basic reclamation law. The points

raised in the following subsections will therefore have to be carefully reviewed by legal counsel for the association before any action is taken thereon.

It is noted that the USBR has proposed to include the following provision in all public-agency contracts that come up for review or amendment:

"Nothing in this contract contained shall obligate or be construed to obligate the United States to increase any contract rate of delivery thereunder; if additional power is not available from the United States, the responsibility for securing additional power shall rest wholly with the contractor."

The Assistant Secretary of Interior, in a letter to the chairman of the Interior and Insular Affairs Committee, recently restated the power policy of the Department in part as follows:

"For its part, this Department is of the view that the people of each area should continue to retain the authority and responsibility for fulfilling their power needs, beyond the reasonable capabilities of those Federal projects that may be constructed from time to time, through entities and by methods of their own choosing."

In the same letter, the sale of large blocks of seasonal firm energy, which is produced in connection with navigation releases, is discussed in relation to the increasing summer load for irrigation pumping and air conditioning in the Missouri Basin. A similar increase in summer loads is taking place in southern Idaho and the seasonal firm energy which is produced in connection with irrigation releases should therefore be given an overall appraisal. All USBR power contracts now in force in southern Idaho should be reviewed and brought up to date to meet present developments.

Contract No. 174R–1506 between Idaho Power Co. and United States Bureau of Reclamation for Boise and Minidoka projects

This contract appears to accomplish the following primary objectives:

(1) Provides a method whereby firm power and energy produced in Black Canyon Dam, diversion dam on Boise River, Minidoka Dam, Anderson Ranch Dam, and the increased capacity made possible by storage releases from Corps of Engineers Lucky Peak Dam is wheeled over the company's system to a group of Federal installations and a specific list of preference customers of the USBR in southern Idaho. The amount of firm power under consideration is 20,500 kilowatts May 1 to September 30; 13,100 kilowatts November 1 to March 31, and 16,400 kilowatts April and October; with the maximum energy to be wheeled by the company limited to 109,891,000 kilowatt-hours annually. The USBR is required to make up, to the company, the estimated transmission losses and compensate the company for wheeling at rates ranging from 1 mill per kilowatt-hour to 3.8 mills per kilowatt-hour, depending on the amount of the company's special facilities required to make such deliveries.

(2) Provide the company with the following quantities of power and energy, a major portion of which is not subject to withdrawal by USBR, for sale to preference customers:

(*a*) 2,000 kilowatts (5-hour peaking power).

(*b*) Secondary energy (estimated 27,500,000±kilowatt-hours annually as amended).

(*c*) 1,500 kilowatts (5-hour peaking power) subject to withdrawal.

(*d*) Additional excess energy produced at the USBR generating plants specified in the contract (at 1 mill per kilowatt-hour).

(*e*) Primary energy not needed to meet the monthly loads of the USBR and preference customers (at 1.9 mills per kilowatt-hour).

For the firm power and energy and secondary energy listed under (*a*) and (*b*) above, plus the use of valuable USBR reservoir space for daily, weekly, and seasonal storage, the company pays a lump sum of $127,250 per year (as amended). Data are not available in the present contract to separate the costs as between primary and secondary energy and the use of valuable USBR reservoir space and other related privileges. It would seem, however, that since the USBR now has more than 6 years of experience under this contract, that an analysis could readily be made to determine whether the actual payment being made by the company for the use of valuable reservoir space and other related privileges is reasonably related to the actual benefits being obtained by the company under present load patterns. If consideration is given by the USBR to the withdrawal of high-grade secondary energy from the company under this contract or any supplement thereto for sale to pref-

erence customers for summer pumping use or for fuel displacement, such a reevaluation of benefits accruing to the company will be worth while. There appears to be justification for the USBR to commence work on such an analysis at this time.

(3) Provides the basis whereby the USBR may withdraw 1,500 kilowatts of peaking power and 2,737,500 kilowatt-hours of energy per annum from the company for sale to preference customers and Federal installations and outlines the basis whereby the company will wheel such power. (This withdrawal has been accomplished.)

(4) Provides that the company will furnish emergency service (standby) for USBR and its customers from its own resources or through purchases from others at such price as may be agreed upon between the parties. There seems to be no recognition given to the fact that the Federal generating plants may and probably do furnish emergency service to the company's system from time to time, and in this respect the contract, when reopened for any cause, should be made on a bilateral basis to the maximum extent possible.

(5) Provides for payment of what appears to be a penalty rate ($1.50 per kilowatt-month plus 1 cent per kilowatt-hour) by the USBR if (i) the USBR fails to deliver the full amount of firm power and energy into the company's system to meet the USBR's firm power and energy obligations to the company, for the Bureau's own use and for the sales to preference customers under contract with the USBR, or (ii) the USBR or its preference customers use power and energy at rates in excess of the specific demand and energy schedules established for each installation or preference customer in the contract. (This penalty rate was reduced by the company in October 1954 to 30 cents per kilowatt of deficiency demand and ½ cent per kilowatt-hour.) The USBR should now attempt to purchase power and energy directly from the Bonneville Power Administration (hereinafter referred to as BPA) to make up any power and energy deficiencies in the output of Federal power plants in southern Idaho. The USBR should also make appropriate arrangements to have the company wheel such power and energy for interim periods as may be required, rather than pay the penalty rate to the company which penalty, in turn, had to be passed on to the preference customers in the form of a surcharge during 1956.

It is noted that the company's recent reduction in the penalty rate, above-mentioned, was made about the time that the company entered into a 20-year power intercharge contract with BPA.

(6) Provides for termination on October 31, 1963, or at any previous time by 3 years' advance written notice. This provision may be an important consideration if the USBR finds that it is desirable to withdraw high grade secondary energy from the company in order to sell such energy to the preference customers or perhaps grant such preference customers, as may construct fuel-fired generating plants, the privilege of using the Federal generating capacity and reservoir space to permit more beneficial use of such fuel-fired generation by integration with a hydro system.

It is noted that this contract departs from the general pattern of USBR contracts in that the usual general contract provisions, which include a standard provision concerning withdrawal of secondary energy, are not made a part of this special integration, wheeling and power purchase and sales contract. This fact must be recognized if the association and its legal counsel decide to work out an arrangement with the USBR to purchase a portion of the high availability secondary energy now being sold exclusively to the company. Perhaps the energy could be withdrawn from the company if it is classified as seasonal firm energy by the USBR, rather than secondary energy as is now the case. This is a matter that merits further discussion with the USBR officials.

It is further noted that the contract specifically provides in article 15 that the operation of the Federal powerplants with the company's system will be carried forward with a spirit of sympathetic cooperation in order that efficient results may be obtained for the benefit of all concerned. It would be helpful if the same spirit of sympathetic cooperation would now be worked into the USBR contracts with cooperatives and other preference customers as these groups attempt to make fuller use of the output of the federally owned and operated powerplants to carry the ever-increasing summer irrigation and other loads, and at the same time increase the revenues of the USBR from power and energy sales.

Contract No. 14-06-100-926 between Idaho Power Co. and United States Bureau of Reclamation for Palisades project

The contract appears to accomplish the following primary objectives:

(1) Provides an arrangement whereby the USBR can wheel a specified and rather limited amount of seasonal firm power to a specific list of preference customers and federally owned installations over the transmission facilities of the company. The company at its option, may increase the amount of power that may be wheeled. In this connection it is noted that the company is now transmitting the substantial amounts of high-grade secondary and dump energy from Goshen to its own load centers. It would appear, therefore, that capacity in the company's major transmission lines is available which would permit the company to increase the amount of power that is whelled for USBR to preference customers. It may be necessary in some instances to provide some additional local service facilities, but this should not present any insurmountable problems.

(2) Provides the USBR with a market of secondary energy, some of which is high-grade secondary energy being available at 100 percent load factor.

(3) Provides the USBR with a market for dump energy at 2 mills per kilowatt-hour. (Dump power is divided between Idaho Power Co. and Utah Power & Light Co.)

(4) Provides standby service for the USBR upon payment of transmission charges therefor, and return of energy to the company at a time specified by the company. It would appear that actually the USBR is in a position to provide emergency standby service for the company through the Utah Power & Light Co.'s transmission system and to the extent that this can be done, the contract should so provide so that the entire arrangement can be made bilateral as is the usual practice in the industry.

(5) Provides a method whereby USBR can purchase from or through the company such additional power and energy as may be necessary to make up any defficiency in federally generated power supply for any reason at costs to be agreed upon between the parties. (This is a departure from the Minidoka contract wherein such charges are fixed.) The provision is effective only for the specific loads and in the specific amounts set forth in subarticle 10 (a) of the contract, and in this regard may be considered to be unduly limited from the standpoint of the preference customers. It is noted that the company anticipated the possibility that USBR may reduce the amount of nonfirm seasonal energy being sold to the company by selling such seasonal energy to other preference customers as the company limits the amount of so-called firming power that would be sold to the USBR under the contract to the amount required to only meet the deficiencies in the contract demands of those customers specifically listed in this contract. Furthermore, the company does not agree to wheel power and energy to preference customers in excess of the presently stated contracted demands.

(6) Provides for termination on October 31, 1976. This contract contains no provision for earlier termination. The contract can, therefore, only be opened by mutual agreement of the parties unless the legal counsel for the association determines that it can be opened because of the restrictive language contained in article 26 as hereinafter discussed.

It is noted in subarticle 14 (a) (3) of the contract that both the company and the USBR anticipated that energy may be available from other Federal generating sources and be wheeled over the transmission facilities of the company. By use of the existing high capacity of 230-kilovolt intertie between the company and BPA, it may now be possible for the USBR to purchase energy from BPA during the irrigation season to either make up for any deficiency in contracted deliveries to preference customers, now or in the future, or to provide a means whereby substantial amounts of high grade USBR secondary energy could be firmed, sold, and delivered to the preference customers as seasonal firm energy to meet the increasing summer pumping requirements of such customers.

It is noted that the USBR reserves the right to reduce or terminate the deliveries of dump energy to the company at any time and could, therefore, make such energy available to the preference customers for use as fuel replacement for a fuel-fired generating plant; provided, however, that the company would be willing to wheel such dump energy for a reasonable charge.

In contrast, it is noted that there are no specific provisions related to the withdrawal of secondary energy from the company for sale to preference customers who may desire to use the seasonal pumping energy under appropriate contracts or for use as fuel displacement for a thermal plant. The general contract provision DD, entitled "Withdrawal of Secondary Energy," is specifically made inoperative for purposes of this contract by article 26 of the contract. Instead, the USBR uses a procedure whereby it can declare, on or before March 31 of each year, the amount of nonfirm seasonal energy that is expected to be available for sale to the company. Since the USBR has not completed arrangements with the company to wheel additional amounts of seasonal firm power to the preference customers, it would appear that the present methods used by the USBR cannot be expected to produce the desired results. Legal counsel for the Association may want to determine whether the preference provisions have been fully protected by the present arrangement.

It would appear that the wheeling charges levied by the company for wheeling seasonal firm power for the USBR to the list of preference customers is based upon and tied to the valuable right given to the company for the purchase of substantial quantities of secondary energy from the USBR, a portion of which can be classified as high-availability secondary energy. The USBR should, therefore, cause studies to be made to determine whether more revenues would accrue to the USBR if a portion of the high-availability secondary energy now being sold to the company at 2.6 and 3 mills per kilowatt-hour was withdrawn from the company and sold to the preference customers under rates and terms similar to those set out in Missouri Basin project, schedule MRB–P8, dated July 1, 1954, attached as exhibit A, after making due allowance for reasonable payment of wheeling charges to the company.

Contract No. 14–06–100–928 between Utah Power & Light Co. and United States Bureau of Reclamation for Palisades project

This contract appears to contain the following primary objectives:

(1) Provides interconnecting facilities between the Palisades generating plant and Idaho Power Co. system.

(2) Provides for wheeling of firm power and energy to USBR's preference customers in the Palisades area.

(3) Enables the company to purchase for an interim period at the low rate of 3 mills per kilowatt-hour all of the firm power and energy generated at Palisades that is excess to needs of preference customers.

(4) Provides the USBR with a market for dump power at 2 mills per kilowatt-hour. (Both Idaho and Utah companies share in the purchase of this commodity.)

(5) Provides standby service to the system of the USBR.

(6) Provides a basis whereby USBR can purchase additional power and energy from the company to meet the loads of the preference customers of the USBR, only during periods when supply from Palisades project is insufficient to meet the specific loads of the preference customers set forth in the contract.

(7) Provides for automatic termination on October 31, 1976. This contract contains no provision for earlier termination.

It is noted that article 12, "Standby for the United States," could be more properly described as "Mutual Standby and Interchange," as the USBR also is required to provide standby for the company under paragraph (b) of this article 12.

It is noted that the company does not have specific rights to purchase secondary energy and use the USBR's excess reservoir capacity. (These rights are presently granted by contract to the Idaho Power Co.)

It is noted that the recital designated as article 6 is much broader than the specific provisions of the contract with respect to purchasing of additional firm power from the company by the preference cutsomers, for we do not find any expressed provisions in the contract covering such a transaction.

It is further noted that the contract is essentially limited to its present scope as there are no provisions for subsequent modification to cover additional wheeling arrangements. In this respect, those preference customers who are dependent on service through a limited wheeling agreement find it difficult to plan for future expansion of their power supply, for they seem to have little choice except to purchase their supplemental firm power and energy requirements from the company on the best contract terms offered.

SUMMARY OF EXISTING USBR WHEELING CONTRACTS

(1) Valuable secondary energy is being sold to the Idaho Power Co. under contracts that make it difficult for the USBR to withdraw additional power and energy for sale directly to the preference customers.

(2) Valuable use of Federal reservoir space and other related privileges are being obtained by the company at a rate of compensation not specifically set out in the contract. Load conditions have changed since these contracts were written, and a reevaluation of certain of the provisions should, therefore, be made to assure adequate compensation to the USBR for the present and future use of such facilities.

(3) While the rates charged for wheeling in both Idaho Power Co. and Utah Power & Light Co. contracts appear to be fairly reasonable, it is possible that such reasonableness may be directly related to the other favorable and exclusive considerations being given to the companies such as the purchase of secondary and dump energy, the convenience of emergency standby service, and the use of valuable federally owned reservoir capacity. Under these circumstances the USBR may find it difficult to prove feasibility for a power marketing transmission system that may better serve the preference customers, for it would have to meet competitively the wheeling rates offered by the companies. An overall appraisal of the present power marketing arrangement in southern Idaho, therefore, appears to merit consideration by the USBR.

(4) Surplus firm power and energy not required by one preference customer within its allocated contract demand cannot now be sold to and used by another preference customer whose loads exceed its contract demand, but is sold to the companies at favorable rates. During a period in which the preference customers as a group are not able to purchase their power requirements from the USBR, the preference customers should, in our opinion, be permitted to work out adjustments in their contract demands by agreement among themselves so that the fullest opportunity is given to such customers as a group to utilize all of the firm power available from the Federal system before any such power is sold to the companies. This matter of basic contract policy merits a prompt and objective appraisal by the USBR.

(5) Such wheeling arrangements as have been obtained by the USBR to date are quite rigidly circumscribed, thus making it necessary for the USBR to pay a penalty to the company when customers of the USBR take deliveries in excess of contract demands.

SECTION II. AVAILABILITY OF SECONDARY POWER AND ENERGY FROM USBR PLANTS IN SOUTHERN IDAHO

GENERAL

The USBR sells firm power from existing powerplants in southern Idaho to preference customers and some to the Idaho Power Co., as heretofore discussed. Under existing contracts with the USBR the preference customers are permitted to take firm energy as required from time to time up to the maximum rate of delivery (contract rate of delivery), which rate varies during different seasons of the year for some customers. Since the Idaho Power Co. has capacity in most of its transmission facilities serving preference customers it would not work a hardship on the company to give the USBR the benefit of diversity between the loads of the various customers of the USBR.

The firm energy that is available from the USBR's generating plants is shown on the attached chart designated as exhibit B. The USBR also sells some seasonal pumping service to several of its customers, with such sales being treated as firm power sales. An example of such a transaction is found in the seasonal power sales to the Raft River Rural Electric Cooperative under contract No. 14-06-100-984 dated May 28, 1956.

Electric energy supplied to preference customers for pumping service by USBR may be taken in such amounts as required during the specified season, April 1 to October 31, up to the contract rate of delivery. At the present time, the energy for seasonal pumping service is obtained primarily from the Palisades project and wheeled to certain preference customers over facilities of the Idaho Power Co.

The Idaho Power Co. presently has transmission capacity to transmit power and energy which it obtains from the Palisades project to its principal load centers including deliveries to the preference customers and there should be no problem in working out a reasonable increase in the amount of power and energy that

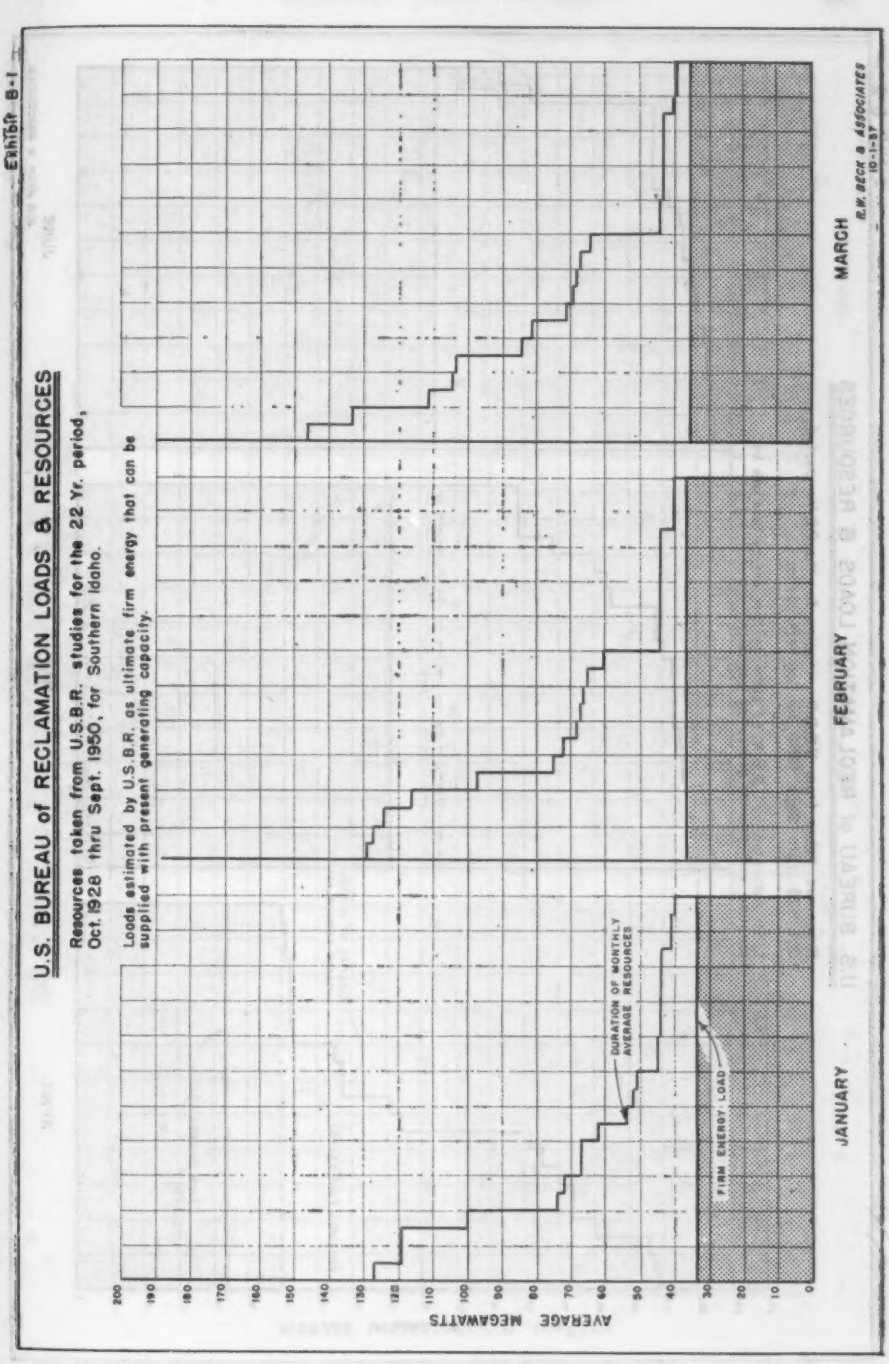


Exhibit B-1
U.S. BUREAU of RECLAMATION LOADS & RESOURCES
Resources taken from U.S.B.R. studies for the 22 Yr. period, Oct. 1928 thru Sept. 1950, for Southern Idaho.
Loads estimated by U.S.B.R. as ultimate firm energy that can be supplied with present generating capacity.
AVERAGE MEGAWATTS
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
DURATION OF MONTHLY AVERAGE RESOURCES
FIRM ENERGY LOAD
JANUARY
FEBRUARY
MARCH
R.W. BECK & ASSOCIATES
10-1-57

Exhibit B-2

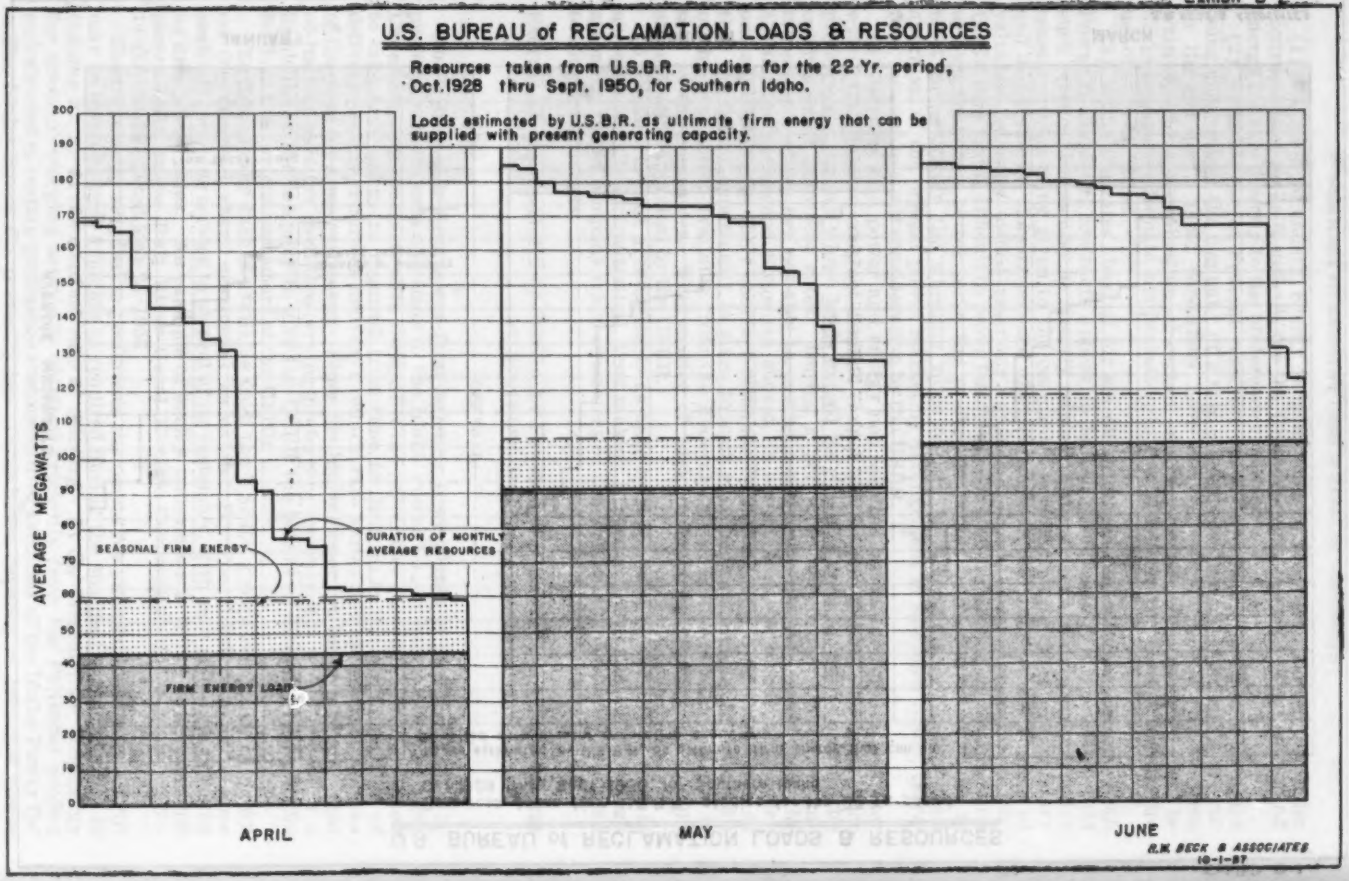


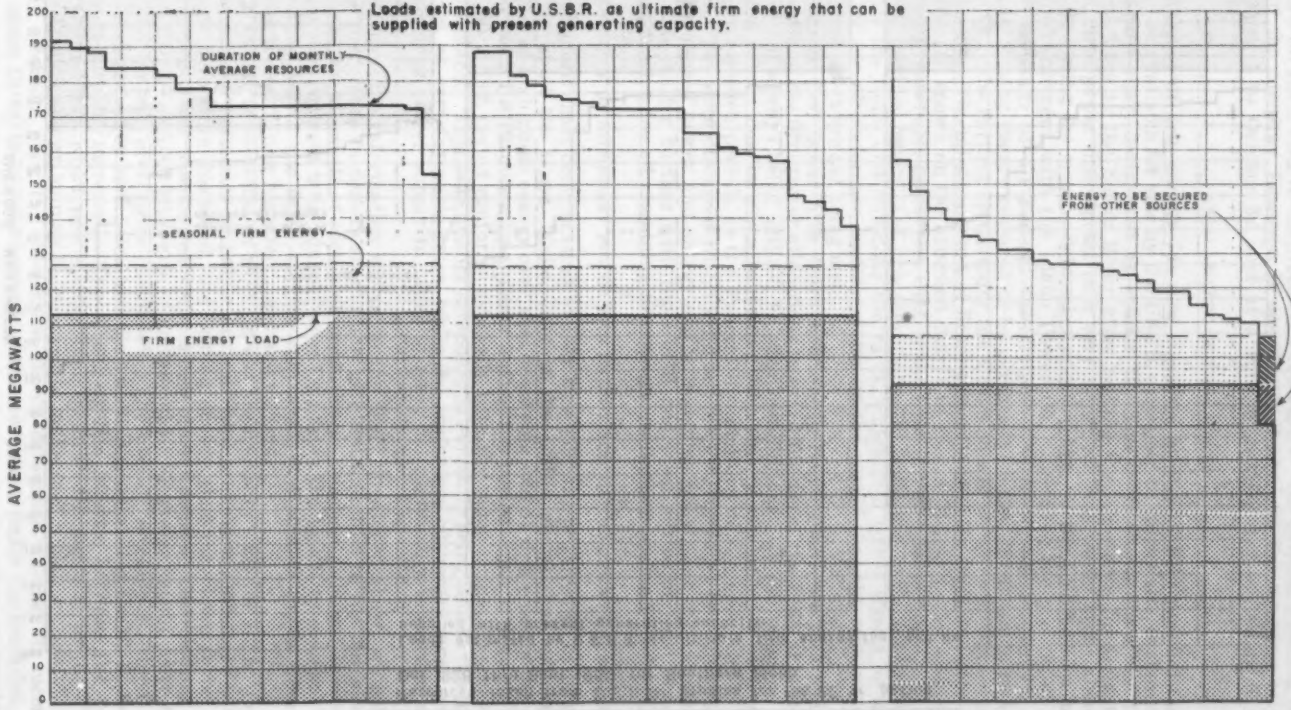
Exhibit B-3

Exhibit B-3

U.S. BUREAU of RECLAMATION LOADS & RESOURCES

Resources taken from U.S.B.R. studies for the 22 Yr. period, Oct. 1928 thru Sept. 1950, for Southern Idaho.

Loads estimated by U.S.B.R. as ultimate firm energy that can be supplied with present generating capacity.



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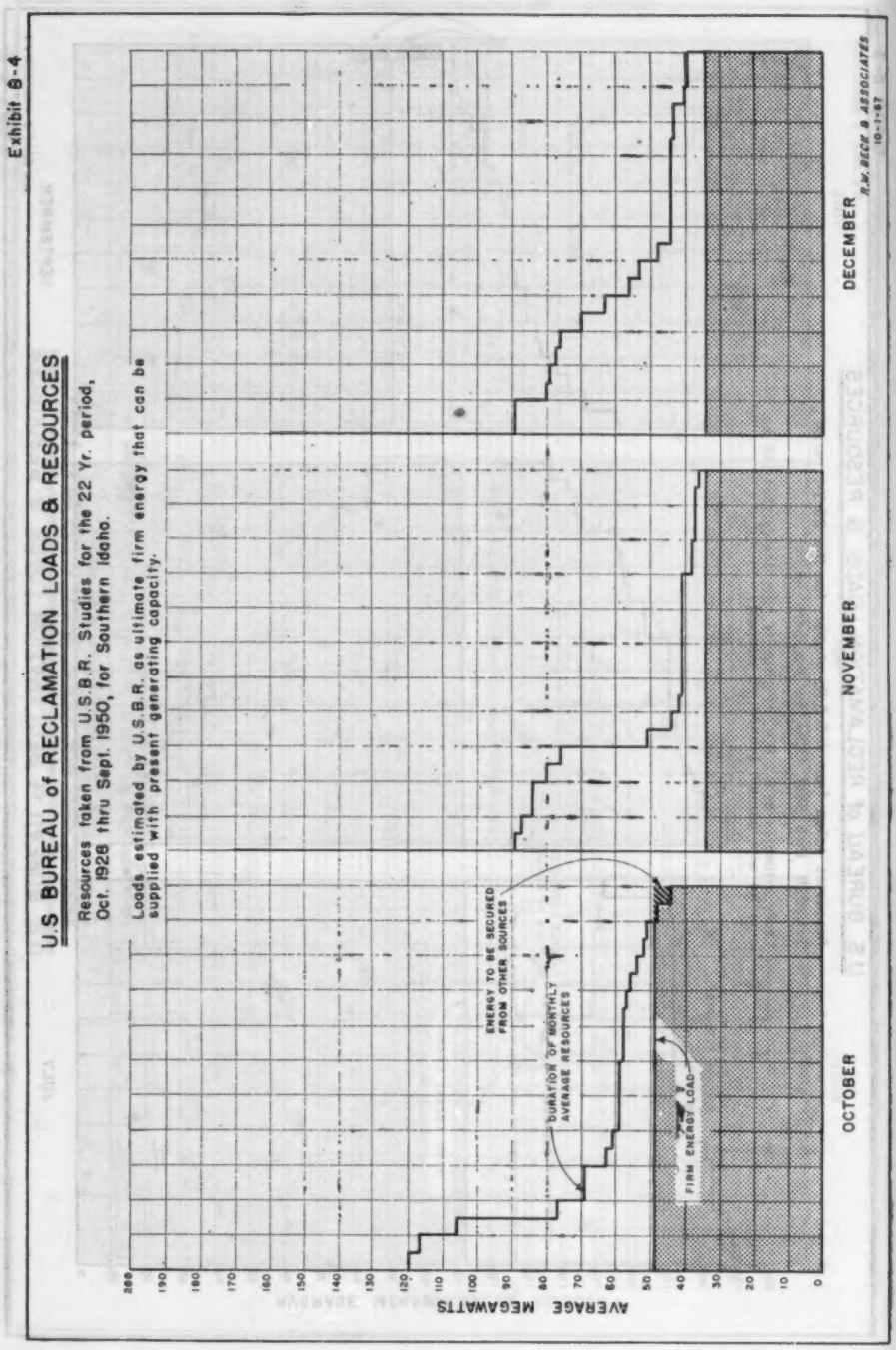
Exhibit 8-4
U.S BUREAU of RECLAMATION LOADS & RESOURCES
Resources taken from U.S.B.R. Studies for the 22 Yr. period, Oct. 1928 thru Sept. 1950, for Southern Idaho.
Loads estimated by U.S.B.R. as ultimate firm energy that can be supplied with present generating capacity.
AVERAGE MEGAWATTS
ENERGY TO BE SECURED FROM OTHER SOURCES
DURATION OF MONTHLY AVERAGE RESOURCES
FIRM ENERGY LOAD
OCTOBER
NOVEMBER
DECEMBER
R.W. BECK & ASSOCIATES
10-1-52

is wheeled for the USBR to the preference customers. The present wheeling obligation of the company, however, is specifically limited by the company to the period April 1 to October 31, and at a rate of delivery not exceeding 61,000 kilowatts.

AVAILABILITY OF FIRM POWER

The amount of firm energy (as now classified by the USBR) presently estimated to be available for sale by the USBR, expressed in megawatts, is shown on the attached chart designated as exhibit B. The chart shows that, based on historical flows in the Snake River after making due allowance for irrigation releases, firm power deficiencies in a very minor amount would occur about 1 year in 22 during the months September and October. If the USBR had a more flexible arrangement with the Idaho Power Co. concerning the pooling of the contract demands of all Federal installations and preference customers, the amount of firming energy required to be purchased by the USBR would be very minor and at the earliest opportunity the USBR should strive to obtain such an arrangement. The minor amount of firming energy actually needed to meet the firm loads (as shown on the attached chart) in such a 22-year period should be available at reasonable rates from BPA or the Utah Power & Light Co.

Certain specified amounts of firm power are still being sold to the Idaho Power Co. under the Boise and Minidoka contracts, which firm power should be withdrawn for use of preference customers during the period that the requirements of such customers are not being met.

During our discussions with USBR officials in Boise, Idaho, we also learned that certain of the firm power allocations reserved for use of the Federal installations are not always being utilized by such installations. In our opinion, consideration should now be given to making such energy available for preference customers for such periods as the Federal installations do not make timely use of same. The data discussed with us did not disclose the exact amount of such presently unused power and energy and it is recommended that the association pursue this matter further with the USBR and upon advice of legal counsel, make application for all remaining firm power available from the USBR system.

AVAILABILITY OF SECONDARY POWER AND ENERGY FOR SUMMER PUMPING SERVICE

The attached chart designated as exhibit B, which was prepared from data obtained by us at the Boise, Idaho, office of the USBR, shows that substantial quantities of high-grade energy over that now being sold as firm eneregy is available from the USBR generating plants during the period April 1 through September 30, which period conforms generally with the pump irrigation season in southern Idaho. This high quality secondary is currently being sold to the Idaho Power Co. at very favorable rates, while the preference customers must seek a supplementary power supply in order to meet the continually increasing summer loads.

Based upon the information shown on the chart mentioned above, we believe that the preference customers should now give consideration to the purchase of 10,000 to 15,000 kilowatts of such high-grade energy (presently classed as secondary energy in contract with Idaho Power Co.) from the USBR as seasonal firm energy in much of the same manner that energy of similar grade from the Palisades project is now bing purchased and utilized.

If the USBR is succesful in working out arangements with the Idaho Power Co. whereby all deliveries to public agencies and preference customers can be pooled as heretofore discussed, the firming energy that may have to be purchased in September in some years would be a minor amount. The resulting cost of using 10,000 to 15,000 kilowatts of additional USBR power should prove to be reasonable for the preference customers. The overall revenues of the USBR would be increased by such sales, and the wheeling revenues for the Idaho Power Co. would also be increased. The strong system intertie between the Idaho Power Co. and BPA which now exists should facilitate the purchase by the USBR of such firming energy as may be required to make such a plan successful.

As an alternate plan, the association should determine whether its members could utilize 10,000 to 15,000 kilowatts of summer power under the condition that service would be interrupted not to exceed 4 hours per day when warranted by water conditions. This plan, which would be based substantially on Missouri Basin Wholesale Rate Schedule MRB–P8, attached as exhibit A, may result in lower cost wholesale power as less firming energy would have to be purchased. Carrier control could be considered by the preference customers to facilitate the

task of interrupting irrigation service as required. This plan should be discussed with the members of the association and the USBR to the extent that it is found necessary to proceed with an alternate plan.

In any event, the association should promptly file, with the assistance of its legal counsel, a formal application wtih the USBR for as much as 15,000 kilowatts of summer firm power and energy from the present generating plants, proceed to negotiate suitable power contracts and then work out a fair and equitable allocation of such additional power among its members and the other preference customers in southern Idaho.

AVAILABILITY OF ENERGY FOR FUEL DISPLACEMENT

It is noted that the average monthly amounts of secondary and dump energy available from the USBR generating plants in excess of the first 15,000 kilowatts of high-grade energy, as mentioned above, is quite substantial and would enhance the feasibility of any fuel-fired generating plant under consideration by the association. While it cannot be assured at this time that the Idaho Power Co. will agree to reopen its existing wheeling contracts with the USBR to cover the wheeling of such secondary and dump energy, an effort should be made to accomplish same. The sizable amounts of fuel-displacement hydro energy now available to the company from BPA should make it possible for the company to work out a sharing arrangement for the USBR fuel-displacement energy with the preference customers.

In recognition of the right of the preference customers to share in the purchase and utilization of fuel-displacement hydro energy, it is recommended that the association, with the assistance of its legal counsel, file a formal application with the USBR for 25,000 kilowats of such fuel-displacement energy pending the completion of the required feasibility and cost studies.

SECTION III. SUMMARY AND RECOMMENDATION

Based upon the aforementioned power-contract review and analysis of power and energy available from the present generating plants of the USBR in southern Idaho, the following recommendations are made for consideration by the association.

(1) The association should cooperate with and support the USBR in all efforts to reopen the contracts with the Idaho Power Co. and the Utah Power & Light Co. in order to increase the power supply to the preference customers, increase substantially the power revenues of the USBR, and increase the total amount collected by the companies for wheeling additional amounts of power and energy to the preference customers. These objectives should be sought through the following step-by-step program:

(*a*) The association should promptly make formal application to the USBR for all remaining firm power available from the federally owned generating plants in southern Idaho and assist the USBR in securing an extension of present wheeling contracts to cover such additional power deliveries.

(*b*) Request the USBR to reopen its contracts with Idaho Power Co. in order to effectively pool the deliveries to preference customers and Federal installations and thereby reduce the amount of firming energy which we understand that the USBR is required to purchase under present contracts.

(*c*) Make formal application to the USBR for as much as 15,000 kilowatts of high-grade secondary power and energy now being sold to the Idaho Power Co. Agree to pay firm power rates to the USBR for the high-grade secondary power and energy used for pumping, provided that the USBR will firm it up and arrange with Idaho Power Co. to wheel such added power deliveries. Work out an allocation of such additional power among members of the association and other preferred customers.

(*d*) As an alternate to (*c*) above, attempt to purchase 15,000 kilowatts of summer pumping power from the USBR, wheeled over the facilities of the Idaho Power Co. under terms and conditions substantially as set forth in the Missouri Basin (interruptible power) schedule MRB–P8, attached as exhibit A.

(2) As a part of a longer range program, the association should make formal application to the USBR for 25,000 kilowatts of fuel-displacement energy for use with a fuel-fired generating plant under consideration by the association, and assist the USBR in working out appropriate wheeling arrangements with the

companies (both Utah Power & Light Co. and Idaho Power Co.). Under such arrangement, the USBR and the companies could be given the option of purchasing all surplus energy available from any generating plants ultimately constructed by the association.

(3) Pending authorization of the proposed Burns reregulating project on the Snake River, urge the USBR to make tentative allocations of the output of this project to all preference customers in the marketing area so that such customers can proceed in an orderly manner to provide for, or purchase on the best terms available, the necessary supplemental power supply.

(4) As an aid to future planning, urge all members of the association to work up 10-year load forecasts and file such forecasts with the association for future reference.

(5) If the association and the USBR are not successful in accomplishing the objectives outlined above, joint action would be justified to obtain congressional authorization for an integrating transmission line between Palisades (Goshen Junction), Burns reregulating dam, and the Minidoka project. A complete record of all conferences and correspondence concerning efforts to work out all steps outlined in these recommendations should be maintained by the association.

(6) Although not considered in detail in this report, the association should also urge joint three-way negotiations with BPA and the USBR to determine whether Bonneville power can be brought into Idaho over the transmission facilities of the Idaho Power Co. for sale to the preference customers, either by BPA directly or by the USBR, as may be to the best interests of all concerned.

(7) There can be no real assurance that the USBR can schedule or secure congressional authorization and appropriations for new multipurpose power projects in southern Idaho on a basis that will assuredly meet the power requirements of the preference customers. The association is, therefore, fully justified in strengthening its organization, continuing its planning studies, and investigating sources of future financing to the end that it will at all times be in a position to construct generating capacity when such capacity is needed to bridge the gap in Federal power supply. The alternative to constructing its own generating plant to provide power during periods of insufficient Federal power supply is the purchase of supplemental power from the private utilities under the best terms and conditions offered.

EXHIBIT A

UNITED STATES DEPARTMENT OF THE INTERIOR, BUREAU OF RECLAMATION

Schedule MRB–P8

MISSOURI RIVER BASIN—EASTERN DIVISION

INTERIM SCHEDULE OF RATES FOR INTERRUPTIBLE COMMERCIAL SEASONAL IRRIGATION AND/OR DRAINAGE PUMPING SERVICE

Effective

July 1, 1954.

Available

In the area generally described as central and eastern Montana, North and South Dakota, central and eastern Nebraska, western Iowa, and western Minnesota.

Applicable

To commercial customers for their own use or for resale for irrigation and/or drainage pumping and purposes incidental thereto supplied through 1 meter at 1 point of delivery. Customers which purchase energy under this rate schedule for resale will establish separate rate schedules for such resale service.

Character and conditions of service

Alternating current, 60 cycles, 3 phase, delivered and metered at low-voltage side of substation. Rates of delivery for pumping service shall be stated in the contract. A seasonal period of delivery for pumping service is permitted hereunder, provided the seasonal service months are stated by contract. The United States reserves the right to restrict deliveries from time to time during periods of its maximum system load, not to exceed 4 hours per calendar day. Where the customer purchases energy for resale under this rate schedule in conjunction with other service under other rate schedules at the same delivery point, the

customer will provide suitable metering equipment to the extent necessary or make suitable arrangements to report separately the amount of power and energy that is purchased and resold for irrigation uses. Appropriate terms shall be provided in the contract for this purpose.

Monthly rate

Capacity charge.—None.
Energy charge.—Four mills per kilowatt-hour for all energy used.

Minimum seasonal charge

Four dollars per kilowatt of contract rate of delivery for seasonal pumping service.

Adjustments

For character and conditions of service.—If delivery is made at transmission voltage so that the United States is relieved of substation costs, 5-percent discount will be allowed on the energy charges.
For transformer losses.—If delivery is made at transmission voltage but metered on the low-voltage side of the customer's substation, the meter readings will be increased 2 percent to compensate for transformer losses.
For power factor.—None. The customer will normally be required to maintain a power factor at the point of delivery of between 90 percent lagging and 90 percent leading.

Senator CHURCH. Was this report based upon a study that involved, among other things, the actual river flow to determine the amount of firm-energy capability of the Bureau system?

Mr. TROMMERSHAUSEN. Yes, sir.

Senator CHURCH. You mentioned that your retained engineers had some difficulty obtaining the necessary data. What did you mean by that?

Mr. SCHLENDER. The Bureau would not release their river-regulation studies.

Senator CHURCH. Did you, or did your retained engineers, ask the Bureau for these studies?

Mr. SCHLENDER. We did.

Senator CHURCH. Did you ever ask the Bureau, in writing, for the studies?

Mr. SCHLENDER. Yes; we did. We even explained—I have copies of the letters here—and, at first, they told our engineers that they believe that, since these studies cost thousands of dollars, they should not be made available to our engineers because then they would become experts on the river regulation at the Government's expense. I assured them that such was not the case; that this group of cooperatives had retained R. W. Beck & Associates on the basis that they would be paid by us on a per-day basis to do this work, and that the records would be ours, not Beck's, and we couldn't afford to pay them to do studies of their own. And, since we were part of the people of this land and part of the public, we should be entitled to these records, but, nevertheless, they were not released.

Senator CHURCH. It was your position, then, that these records were public records and, therefore, you ought to be entitled to know what data these records contained; is that correct?

Mr. SCHLENDER. That is correct.

Senator CHURCH. Did you propose or request that the Bureau furnish the records to you or did you request that the Bureau make the records available so that you could compute the data that the records showed?

Mr. SCHLENDER. To be exact we requested that the Bureau make them available to us, to provide photostat copies of them. We didn't

ask them to furnish us a complete copy which we could take out of their office and keep, but we asked to make photocopies because of the fact that they are so extensive that it would take an engineer weeks of hand copying to do this otherwise. We requested that we be allowed to make some photocopies.

Senator CHURCH. Was that request denied?

Mr. SCHLENDER. That is right.

Mr. TROMMERSHAUSEN. In all fairness to the Bureau, I should supplement Mr. Schlender's remarks including a statement by the regional director of the Bureau of Reclamation, that we were permitted to work with all of their workpapers in their Boise office under the supervision of one of their engineers who knew what all the assumptions were and what the whole thing was about. That procedure would require a great deal more detail than we wanted to do at Boise. We naturally felt the engineer that we had doing the work was fully as capable of understanding any river regulation study that the Bureau might have made, and if the assumptions were clearly set forth, any hydraulic engineer can understand what a river regulation is.

So, we did spend 2 or 3 days in Boise and got as much information as we could, and that information is the basis of our preliminary report.

Senator CHURCH. In other words, your preliminary report is based upon data that——

Mr. TROMMERSHAUSEN. Was hand copied.

Senator CHURCH. Was hand copied and is Bureau data?

Mr. TROMMERSHAUSEN. That's right.

Senator CHURCH. On the river.

Mr. TROMMERSHAUSEN. That's right.

Mr. SCHLENDER. About this time we learned that the Idaho Power Co. was required by their FPC license to coordinate Brownlee and Oxbow Dams with the Northwest power pool. We immediately saw the fact that to firm up this 15,000 kilowatts of power that the Bureau had, and which might only not be there for a short period in 1 year out of 22—in other words, it was about 99 percent firm power—that if the Bureau would make an agreement with Bonneville to buy a little from them when that short period might occur, and also make an agreement to get some from Idaho Power, that that might solve our whole problem.

So, we started corresponding with various officials on that score, but the Secretary of the Interior has stood fast on the claim that we cannot get that wheeled.

Senator CHURCH. How many kilowatts does this involve?

Mr. SCHLENDER. It would involve wheeling about 10,000, I believe. Is that right, Mr. Trommershausen, during that period when we might be short?

Mr. TROMMERSHAUSEN. Yes.

Mr. SCHLENDER. For about 1 month in 1 year out of 22.

Senator CHURCH. But the figure that I want to get is, based upon the study made by your retained engineer, how much additional firm power does that study show that there would be available from the existing Bureau facilities that the Bureau is not now treating as firm power?

Mr. SCHLENDER. I believe I will let Mr. Trommershausen answer that.

Mr. TROMMERSHAUSEN. The conclusion we reached was that except for this 1 year in 22, and in certain periods when there was a limitation on peaking capacity, there would be 15,000 kilowatts—at least 15,000 kilowatts—of power available during the irrigation season that would be of a grade and quality that the farmers would accept for pumping.

Senator CHURCH. You do not mean by that that there would be 15,000 kilowatt-hours of firm power available?

Mr. TROMMERSHAUSEN. We would call it seasonal firm power because it is available from April through September, during the irrigation season in Idaho.

Senator CHURCH. During that period it would be firm power, not interruptible power; is that correct?

Mr. TROMMERSHAUSEN. It would not be year-round firm power as firm power is usally described. But Idaho needs summer power; their summer peak is from April through September, and this power that is available from the Bureau system fits that need, and there are at least 15,000 kilowatts that meets that requirement.

Senator CHURCH. Would this be the kind of power that would be available under the present law to cooperatives and municipally owned electric systems as preference customers?

Mr. TROMMERSHAUSEN. Senator, you open up a very great question in that the preference for Federal power to these public agencies has generally been reserved to firm power. In my studies of several areas of the country, there are many definitions of firm power, and it seems that the definition of firm power can be left to the latitude of the Federal agency selling the product.

In the case of the firm power as I have found defined in and set forth in these Idaho contracts, is about the highest grade of firm power that you can find. It is based upon the critical year of record, and in that regard these preference customers are getting a very high-grade product. But under those conditions the next increment of power, which is going to the Idaho Power Co. under long-term contracts, is very high-grade secondary power. As I indicated, from an energy standpoint, these studies show that 15,000 kilowatts are available 99.9 percent of the time over a 22-year period.

Senator DWORSHAK. Where is that power generated?

Mr. TROMMERSHAUSEN. Senator Dworshak, that power is generated in all the four Bureau plants in Idaho. Taken as a group, sir. Over and above firm power, there is a block of 15,000 kilowatts now labeled secondary power that has this quality that I spoke of.

Senator DWORSHAK. It is not to be transmitted from one point. It would have to come in from four different generating points?

Mr. TROMMERSHAUSEN. Yes, sir. It would have to be integrated.

Senator CHURCH. You are speaking of the whole system?

Mr. TROMMERSHAUSEN. The whole system.

Senator CHURCH. This 15,000 kilowatt-hours, is this an integration benefit to be derived from integration of the Bureau's system, or is this power that is available even under the present system of operation which the Bureau chooses to treat as dump power and to sell at discount rates or dump power rates to the Idaho Power Co.? What I am trying to get at is this: Where does this 15,000 kilowatt-hours come

from? Is it an added benefit that would be derived from a change or from an integration by the Bureau of its dams, or is it there now under the present method of operation?

Mr. TROMMERSHAUSEN. Senator Church, I would like myself to have a full answer to that question. That is one of the unresolved problems. In testimony on the Burns Creek project in May 1957, Harold Nelson, regional director of the Bureau of Reclamation, testified that the Bureau has now integrated the operations of the four projects by interconnecting with the Idaho Power Co., and they say that by doing so, they have added to the firm capability of all the plants and have made more power available for sale to these preference customers. We, not having full access to their records, have not been able to verify that. I think it would be of interest to this committee and it would be well for the Bureau to supply the committee with an exhibit showing how these four plants have been integrated through the wheeling agreement they have with the Idaho Power Co. I think those facts should be laid before the committee as a part of these hearings.

Senator CHURCH. I think it appropriate to say at this point that the Bureau of Reclamation was invited to participate in these hearings, as well as the Bonneville Power Administration. The Secretary, Secretary Aandahl indicated this morning that he did not know that the Bureau of Reclamation was going to participate or had intended to participate. But I think that in view of the testimony that is being given here by the cooperatives, in view of the studies that have been made that relate to the method of operation of the Bureau's own system in Idaho, and the questions that have been opened up by virtue of this testimony, that in order to have a complete picture and to have both sides presented to the committee, that we make another request to the Bureau to participate, and I think that Mr. Mapes, if you would see to it that that communication is made and the request made that the Bureau appear here tomorrow, I think that it would be helpful. And should the Bureau need some additional time to prepare whatever studies or whatever responses they think necessary, then, of course, that time will be accorded to them. But I do think they should participate and I think that the committee ought to insist that they do.

Mr. TROMMERSHAUSEN. Senator Church, may I complete my answer? The 15,000 kilowatts, as was previously described, is based upon the operation of the 4 plants as an integrated coordinated operation, and we have taken the historical water flow for the last 20 years and assumed that it would repeat for the next 20, and you come up with that answer. It requires coordination and integration to achieve this result.

Senator CHURCH. When you speak of coordination, you are speaking of coordination within the Bureau's own system?

Mr. TROMMERSHAUSEN. That's right.

Senator CHURCH. We are talking about something that is entirely apart from the 13,000 additional kilowatts of power that might be derived from an integration of the Bureau system with the Bonneville Power Administration?

Mr. TROMMERSHAUSEN. Yes. May I say, sir, that we were not requested to get into this larger integration problem. We didn't have access to the integration studies that were going on between the Bu-

reau and the Bonneville Power Administration. But may I say that I have since yesterday read the memorandum that was prepared by Mr. Chester Mohler of BPA. I might say that I have high regard for his competency as a hydraulic engineer, and although I haven't checked the work papers and the background of his study, because of my knowledge of his competency, I would be inclined to accept the recommendations he made—the conclusions he made here this morning. An additional study yet needs to be made. They (BPA) were looking at firm power in terms of year-around firm power, which is the classical way to consider this product.

We were looking at power, at the request of the Snake River Power Association, to see what additional summer firm power was available, because that is the problem in Idaho.

I might also add here that we, as engineers—and I speak of private consulting engineers and perhaps the Bonneville Power Administration and certainly the Bureau of Reclamation—have somehow got our own concepts sort of mixed up with what these farmers need. We keep trying to prepare firm power and present a very high-quality product, and when you try to do that you are also adding to the cost. It seems that we should take time out and ask these farmers who are willing to buy this power for pumping what they can get along with, because when you consider that you attempt to provide firm power for pumping at a premium price, you then have the hazards of grasshoppers, frost, wind, heat, all these other factors. So, perhaps these farmers in these areas, in Nebraska, the Missouri Basin, in Idaho, who are attempting to pump wells, do not need such a high quality of power, and that if, as engineers, we will approach that problem and see if a certain degree of interruptible is tolerated by these farmers, if it will save them 10, 15, 20, or 30 percent. I think that matter deserves very serious study by all Federal agencies selling power in areas where some irrigation is done by pumping. I think a great contribution can be made in these areas by the Federal agencies. If you make that study, I might say that a client such as this group really doesn't have the financial resources to hire consulting engineers to make such extensive studies. But they certainly should be made by the Federal agencies.

Senator CHURCH. Mr. Trommershausen, it was your conclusion then on the basis of the studies that you made that the Bureau had 15,000 kilowatts of what you have called seasonal firm power?

Mr. TROMMERSHAUSEN. That is right.

Senator CHURCH. That could be made available to preference customers?

Mr. TROMMERSHAUSEN. That is right.

Senator CHURCH. Without any integration with any other system?

Mr. TROMMERSHAUSEN. That is right.

Senator CHURCH. Do you have familiarity with the practices of Government power authorities in other parts of the country?

Mr. TROMMERSHAUSEN. Yes, sir.

Senator CHURCH. Do you know whether other power authorities in other parts of the country do, in fact, sell this kind of power that you have referred to here as seasonable firm power to preference customers?

Mr. TROMMERSHAUSEN. Senator Church, I do not have knowledge of any sales that have been made. We were furnished by our Columbus, Nebr., office with a copy of Missouri Basin rate schedule, which is included in our contract, MRB–P8, which is interruptible power schedule available in the Missouri Basin if the farmers will accept interruption 4 hours a day for the flat rate of 4 mills per kilowatt-hour. It seems to me that is a very attractive rate and a good arrangement.

Senator CHURCH. However, with respect to this 15,000 kilowatts, as based on your study, there would need be no interruption during the summer season; is that correct?

Mr. TROMMERSHAUSEN. Except for——

Senator CHURCH. One year in 22.

Mr. TROMMERSHAUSEN. One year in 22 on energy, and there are short periods in 6 years because of some limitation on peaking capacity that was touched on by Mr. Mohler of BPA this morning; that there are certain periods in which their reservoirs are down and there is a restriction, there is a limit on peaking capacity.

Although I haven't had the benefit of Mr. Mohler's studies, I believe that those periods in which there is a limit on peaking capacity on the Bureau's system, are again of such short duration that the farmers would be willing to interrupt and accept the power as it comes from the Bureau's system, because you can't afford—you couldn't afford to put in generation or transmission to carry this 86,000 kilowatts that Mr. Mohler spoke of this morning if it was only going to be needed for maybe a week or 2 every 4 or 5 or 10 years. There is an economic problem there. That is why I came back, after hearing the testimony this morning, to the conclusion that we need to take a serious look at this situation to see whether the farmers do, in fact, need such high quality summer pumping power.

Senator CHURCH. You referred to the fact that Mr. Nelson has testified that the Bureau system in Idaho is integrated. Assuming that that is so, so that the dams are being operated in a way to generate the optimum amount of electricity, then is it a fair assumption that if your study is accurate that this 15,000 kilowatts of seasonable firm power which is not now being made available by the Bureau to preference customers, is being sold at dump rates to the Idaho Power Co.?

Mr. TROMMERSHAUSEN. The Minidoka contract gives the company the right to about 60 million kilowatt-hours, a portion of this high-grade secondary—65 million kilowatt-hours is at a rate of less than 2 mills a kilowatt-hour.

There are 95,000 kilowatt-hours from Palisades of very high quality secondary that goes into this 15,000 kilowatt block that is sold to the company at 3.1 mills per kilowatt-hour.

Senator DWORSHAK. Where is that power delivered?

Mr. TROMMERSHAUSEN. It is delivered to Idaho Power Co., at Goshen Junction, and at the Minidoka plant at Anderson Ranch, and at the Anderson bus bar.

Senator DWORSHAK. At Minidoka?

Mr. TROMMERSHAUSEN. Yes, sir.

Senator DWORSHAK. Do they have surplus power there? I thought all the power at Minidoka that was not contracted for fully was diverted to the north side extension, Homestead division? Do they actually have surplus power at Minidoka?

Mr. TROMMERSHAUSEN. Senator, I can't answer your question specifically. This 15,000 kilowatts was taken as a gross summation by our engineers for all the group.

Senator DWORSHAK. But you did include one of the delivery points, Minidoka Dam?

Mr. TROMMERSHAUSEN. Yes.

Senator DWORSHAK. So, immediately the question arose in my mind whether they had any surplus power there at any time during the year.

Mr. TROMMERSHAUSEN. I would think that—and I am talking off the top of my head—that there would be times at Minidoka that there is power available there over and above what they are delivering to the preference customers and to the Government's own pumps.

Senator DWORSHAK. You are not sure, you just assume that?

Mr. TROMMERSHAUSEN. Yes.

Mr. SCHLENDER. Might I help answer that question, Senator? There is in the early part of the irrigation system and the late part of the irrigation system surplus power at Minidoka.

Senator CHURCH. Mr. Schlender, based on this preliminary report that your retained engineers furnished you, did you make any proposals to the Bureau of Reclamation looking toward possible purchase of this 15,000 kilowatts of seasonal firm power that the record indicated the system could furnish?

Mr. SCHLENDER. Yes, we have.

Senator CHURCH. I think perhaps I interrupted you at the point in your testimony where you were about to proceed to that.

Mr. SCHLENDER. Yes. I was about to come to that.

Might I state, however, at this time, that we have assessed the loads and the growing requirements of the members of our association, and we can see that unless we get some additional power in the area over and above what we now have, that the group will be about 60,000 kilowatts of capacity short by 1965.

I had, in talking about our efforts to secure a favorable look from the Department of the Interior on this wheeling agreement to firm up the Bureau's system from Bonneville through Idaho Power's lines, and I would like at this point to have Mr. Paskett read a letter which he received, or which he sent and the answer he received from Secretary of Interior on this problem. I think it is pertinent to this thing that you are studying here today.

Senator CHURCH. Would you read the letters into the record.

Mr. PASKETT. Senator, I would like to first read part of a letter, dated October 11, to Mr. Seaton to lay the fundation for the letter. Also, the letter of November 20 that was already presented as testimony.

Hon. FRED A. SEATON:

DEAR MR. SECRETARY: We have learned on good authority that Idaho Power Co. is asking to negotiate a contract with Bonneville Power Administration for the exchange of power between southern Idaho and the rest of the Columbia Basin over their La Grande tie. We urge you to consider that the execution of such a contract fundamentally puts us in the Bonneville marketing area since we are tied right to the Idaho Power transmission grid with our transmission line. We are desperately in need of more power, especially irrigation pumping power. We are informed by the Bureau of Reclamation that we were lucky we did not have the switch pulled on us last summer.

Then, in answer to that, October 24:

DEAR MR. PASKETT: This matter is receiving careful review and further reply will be sent to you during the early part of November.

Sincerely yours,

FRED G. AANDAHL.

Then, in connection with the December 20 letter to myself by Mr. Aandahl, one portion of it was read here previously, so I won't read that.

Senator CHURCH. Would you make copies of the whole letters available for the record?

Mr. PASKETT. Yes, sir.

The staffs of the Bureau of Reclamation and the Bonneville Power Administration are making studies which will throw additional light on the feasibility of the Bureau of Reclamation utilizing Bonneville Power Administration dump energy to serve additional power to your cooperative and others in southern Idaho. However, we must caution that there is a serious question as to whether this dump energy would be of any real benefit to your cooperative without the availability of some other source of firming energy and a satisfactory wheeling arrangement. It is also to be borne in mind that the wheeling distance is in excess of 300 miles, and the wheeling cost would have a substantial impact on the economic feasibility.

Another letter to Mr. Aandahl, dated January 2:

We note that you make specific reference that FPC requirements at Idaho Power Co. coordinate their Brownlee Dam with the Northwest power pool as in no way related to the wheeling of power between the Northwest power pool and southern Idaho power pool. After all, the Northwest power pool is practically all Bonneville Administration power and the southern Idaho pool is in a very substantial part Bureau of Reclamation power. If coordination of the two systems does not mean the exchange of energy for the greatest benefit to the most people concerned, then what does it mean?

Does it mean only that Idaho Power Co. is to be allowed to sit between the two systems owned by the people and reap the benefits of the power exchange which in reality gives them firm power from the Government plants at dump power rates? Is this to be allowed, especially when the company shows no consideration for the urgent requirements of a large block of public for power at a reasonable cost?

In answer to that, I think, a very evasive answer:

DEAR MR. PASKETT: In the discussion in our December 20, 1957, letter of the relationship of wheeling to the problem of coordination, we intended only to indicate that the wheeling of federally generated power to the Government's customers is not a requirement imposed upon Idaho Power Co. by the FPC license provision with respect to coordination by the company with the Northwest power pool.

FRED G. AANDAHL.

Senator CHURCH. I think that this morning's hearing brought out that the studies that were referred to in this correspondence have, in fact, been completed and have shown that if these two systems were integrated that the firm power output of the Bureau's own system would be increased by 13,000 kilowatts. Dr. Pearl also indicated this morning that the Bonneville Power Administration feels that such an integration would be in the public interest and that the Bureau of Reclamation is now undertaking to negotiate with the Idaho Power Co. looking toward a wheeling arrangement that would make this possible.

Going back, Mr. Schlender, to your own study, which did not deal with the benefits to be derived from integrating two systems but rather with the possibility of the Bureau furnishing, within its own

system, apart from any integration with the Bonneville system, additional power to the preference customers, and referring once again to a study which showed that perhaps as much as 15,000 kilowatts of seasonal firm power was available within the Bureau's own system, have you ever taken this study up with the Bureau of Reclamation to determine whether or not they might look with favor toward changing their procedures and making additional seasonal firm power available in their own system to preference customers?

Mr. SCHLENDER. Yes. We authorized Mr. Herbert Westfall, a hydraulic engineer for R. W. Beck, to confer with the Bureau's power division while he was in Washington, and he did. He conferred with Mr. Campbell and showed him the charts that are in that study and how they related to the power supply there. and in that conversation asked him if it was not true that the same kind of power that was available in the Bureau system and which we were after, would like to get I should say, was being sold in the Missouri River Basin to properties on a 4-hour daily interruptible basis. He said it was, but it wasn't available to us because they didn't have any wheeling agreements or any withdrawal clause in their contract with the Idaho Power Co.

Senator CHURCH. So that I may understand this part. Do you mean by this that the response to your inquiry was that in Idaho this 15,000 kilowatts of seasonal firm power could not be made available to the co-ops because in Idaho the Bureau had contracted to sell this power to the Idaho Power Co. or to the private utilities, and there were no provisions in their contracts that would permit a rearrangement, is that it? Am I construing your testimony correctly?

Mr. SCHLENDER. Essentially that is right. I believe that that would be the result, wouldn't it? You are more familiar with that.

Mr. TROMMERSHAUSEN. Perhaps at this point, Senator Church, I should discuss that very important problem. I might say that my responsibility in this report was the appraisal of these Idaho Power Co.'s wheeling contracts. Other engineers of the firm made the hydraulic studies.

I might say that I found that these are the most rigidly subscribed power contracts that have come to my attention for many, many years, and I have analyzed power contracts for the greater part of 15 years.

There are two contracts that cover this wheeling situation, and I think I can cover it very briefly. It is covered in detail in the report, so we all have the picture here.

The first contract, which is No. 174R–1506 provides a method whereby the output from Black Canyon, Boise diversion, Minidoka, and Anderson Ranch are wheeled to the preference customers. That contract provides that 2,000 kilowatts of 5-hour peaking power—which is essentially firm power and could be firm power if it were used in another manner—is reserved to the Idaho Power Co. And I might say that during this period when the Idaho cooperatives were short of power, this 2,000 kilowatts was still going to Idaho Power Co. and is today going to the Idaho Power Co.

There is a second group of 1,500 kilowatts of the same type of power which is subject to withdrawal by the Bureau, and it has been withdrawn.

We have referred the matter to the legal counsel for the Snake River Power Association to see whether or not under the preference law the

2,000 kilowatts previously mentioned can likewise be withdrawn. The cooperative doesn't have an answer from their attorney on that point.

The additional excess energy over and above the firm power that is sold to the preference customers, and that power used by the Bureau of Reclamation pumping units throughout that area, are sold to the Idaho Power Co.

There is another feature of the contract which is a bit unusual in that the company agrees to furnish emergency standby service for the Bureau of Reclamation generating plant, for which they charge the Bureau for the power, for the energy, and for the wheeling, and that is a unilateral transaction, and although there may be times when the Bureau generating plants can help the company—and I presume they do—it is not recognized as an element of this contract.

There is another provision which to us appeared to be a penalty provision and it was later modified, and that is that in the event these cooperatives exceeded their contract demand in the Minidoka, the Bureau had to pay $1.50 per kilowatt per month for all such excess use plus a cent a kilowatt-hour. And that to me is a penalty rate.

Just a few months prior to the time when the Idaho Power Co. started negotiations with the Bonneville Power Administration on the exchange agreement, that was modified, I don't have the record as to the reason for it being modified, but it was modified very substantially. It was modified to the tune that the demand charge was reduced two-thirds and the energy charge one-half. So, it would result, now, if the Bureau had to buy that penalty energy at the present load factor in the area, it would result in a cost to the Bureau of about 6 mills per kilowatt-hour.

I might say that if the Bureau had the integration agreement, the coordination agreement with Bonneville, there could be an exchange between two Federal systems and there wouldn't have to be a power purchase at all.

This contract provides for termination on October 31, 1963, or at any previous time on 3 years' written notice.

This contract departs from the general pattern of purchase contracts that I have studied in that the usual general contract provision, which is a printed form on purchase contracts, has been modified concerning the standard provision on the withdrawal of energy. The Bureau doesn't retain to itself the right that it usually has kept to itself to withdraw secondary energy. And that is one of the stumbling blocks. The cooperative would find in now attempting to get that portion of its 15,000 kilowatts that comes from Anderson Ranch, Boise diversification, and Minidoka. I might say that that is a very rigidly circumscribed contract as far as the Bureau is concerned.

Another point I might make here is that the Bureau does not even retain the diversity between its own customers. If there are some of the customers in the group of 16 who are not using their contract demand, they each pay for the contract demand anyhow. And the power they do not use the Bureau turns around and sells to the Idaho Power Co.

Senator CHURCH. We do in fact have 16 co-ops, users?

Mr. TROMMERSHAUSEN. Yes, sir.

Senator CHURCH. And each one contracts for a certain amount of power from the Government?

Mr. TROMMERSHAUSEN. Say a thousand kilowatts apiece.

Senator CHURCH. Let's assume for purposes of simplicity that each one contracts for a thousand kilowatts apiece. The first user actually uses only 750 kilowatts. That leaves a balance of 250. The 16th user in the pool finds that he could use more than a thousand kilowatts. There is no way under the contract that that 250 kilowatts that 1 user has contracted for can be transferred over to assist the additional need of the 16th user?

Mr. TROMMERSHAUSEN. That's right, sir.

Senator CHURCH. Is it commonplace? You are familiar, are you not, with other contracts between public power authorities and private utilities with respect to the sale of public power? Are you generally familiar with contracts in this field?

Mr. TROMMERSHAUSEN. I am familiar, sir, with the contracts of the Bonneville Power Administration and the Missouri Basin System, and these——

Senator CHURCH. Do other contracts with which you are familiar permit a pooling arrangement whereby power that is not used by one preference customer might be transferred to the use of another within the limits of the demand of the entire pool?

Mr. TROMMERSHAUSEN. To the best of my knowledge, Senator Church, the Bonneville Power Administration is the only agency that has been able to accomplish that.

Senator CHURCH. That kind of pooling arrangement?

Mr. TROMMERSHAUSEN. That kind of pooling arrangement. The Bureau of Reclamation has not been successful in Idaho in doing it, nor in the Dakota section of the Missouri Basin that I have studied. Again, the present arrangement gives the benefit of diversity to the private company, and it does one further thing: That power which is classified as firm and sold under the contract to the cooperatives as firm power therefore is firm, and because it is not used by the cooperatives, is made available to the private companies at a dump rate. The companies know generally for what period of time, may be 1, 2, or 3 years, they know how long it is going to be before this public agency needs the power for its own loads because load estimates are common knowledge. So to that extent these companies are taking advantage of the Bureau of Reclamation.

Senator CHURCH. You gentlemen have counsel with you today; do you not?

Mr. Rigby is here, I recognize.

The problem of making available to preference users these 15,000 kilowatt-hours, even if the Bureau were to decide it would be a good thing to do so depends, it seems to me, upon the possibility of modifying existing contracts; would you agree with that, Mr. Rigby?

Mr. RIGBY. That's right, sir.

Senator CHURCH. Have you prepared a petition for your clients to the United States Bureau of Reclamation concerning this matter in which you request that they take certain action in connection with these contracts?

Mr. RIGBY. Senator, on the 7th day of May of this year we filed with the Bureau of Reclamation, through the Department of the

Interior, a petition. This petition is based largely on the studies that we have made. We recognize that there are a lot of legal technicalities that have got to be overcome.

Of course, what we are hoping is that we can get the Bureau to look into these contracts and see if we can't modify those because of the rigidity of the provisions, to see that preference customers are given the rights granted to them under the law. We want to work in cooperation with the Bureau to see if that can not be done. So we have presented all of these things in this petition.

Senator CHURCH. Is this a copy that I am handing you now—is this a copy of the petition that you have filed?

Mr. RIGBY. Yes; that petition consists of nine pages. It is signed by John L. Brog, president, and Edwin Schlender, secretary, of the Snake River Power Association, Inc.

Senator CHURCH. Attached to the petition I find a number of charts and diagrams.

Mr. RIGBY. Yes.

Senator CHURCH. Are these related to the petition and to the study that we have heretofore referred to?

Mr. RIGBY. Yes; there are four exhibits, B–1 to B–4, inclusive. They are referred to in the petition by reference and made a part of the petition.

Senator CHURCH. If there is no objection, the petition will be made a part of the record of this proceeding. The graphs have previously been submitted. (See pp. 83–86.)

(The petition follows:)

PETITION BEFORE THE BUREAU OF RECLAMATION OF THE UNITED STATES

IN THE MATTER OF THE APPLICATION OF SNAKE RIVER POWER ASSOCIATION, INC., PETITIONER, FOR THE PURCHASE OF POWER FROM THE UNITED STATES BUREAU OF RECLAMATION

Comes now the Petitioner, and petitions the Bureau of Reclamation of the United States, hereinafter called USBR, as follows:

I

That the Petitioner is a corporation duly organized and existing under and by virtue of the laws of the State of Idaho as a nonprofit cooperative corporation with members all owning equal rights; and said corporation was formed for the purpose of providing, securing, and developing adequate and dependable sources of low-cost electrical energy for its members.

II

That the members of the petitioner corporation presently acquire their electrical energy needs from the USBR, private utilities, and their own generating systems; that the said sources of supply are inadequate or unfeasible, in that the purchases from the said USBR are limited by contract; that the purchases from the private utilities are limited by the prohibitive rates charged by said utilities, and that their own generating systems are operating to capacity.

III

That the members of the petitioner corporation are various cooperatives and municipalities.

IV

That the members of the petitioner corporation have greatly increased their power sales over the past ten years, and anticipate power demands for their several systems to furnish which are far in excess of their present means of supply. The power requirements studies of some representative members of the petitioner corporation are as follows:

Member	Average yearly percent of increase during 10-year period	Energy purchased in 1956 in kilowatt-hours	Estimated needs in 1962	Estimated needs in 1967
Raft River Rural Electric Cooperative Association, Inc	37.3	20,557,000	47,219,000	63,848,000
Lost River Rural Electric Cooperative Association, Inc	37.1	16,356,000	30,607,000	37,957,000
Fall River Rural Electric Cooperative Association, Inc	24.2	6,736,800	10,535,000	13,876,000
Lower Valley Rural Electric Cooperative Association, Inc		6,696,000	21,065,000	30,120,000

That all other members of the petitioner corporation have similar problems in their anticipated power requirements for the future and, for this reason, are joining the petitioner corporation in an effort to in unity bargain for the acquisition of power to satisfy these needs.

V

That the said USBR and Idaho Power Company, hereinafter called IPC, by contract No. 174R–1506, have provided for the following primary objectives:

(1) Provides a method whereby firm power and energy produced in Black Canyon Dam, Diversion Dam on Boise River, Minidoka Dam, Anderson Ranch Dam, and the increased capacity made possible by storage releases from Corps of Engineers' Lucky Peak Dam is wheeled over the IPC system to a group of Federal installations and a specific list of preference customers of the USBR in southern Idaho. The amount of firm power under consideration is 20,500 kilowatts, May 1 to September 30; 13,100 kilowatts, November 1 to March 31, and 16,400 kilowatts, April and October; with the maximum energy to be wheeled by the IPC limited to 109,891,000 kilowatt-hours annually. The USBR is required to make up to the IPC the estimated transmission losses and compensate the IPC for wheeling at rates ranging from 1 mill per kilowatt-hour to 3.8 mills per kilowatt-hour, depending on the amount of the IPC's special facilities required to make such deliveries.

(2) Provides the IPC with the following quantities of power and energy, a major portion of which is not subject to withdrawal by USBR, for sale to preference customers:

(a) 2,000 kilowatts (5-hour peaking power).

(b) Secondary energy (Est. 27,500,000+kilowatt-hours annually as amended).

(c) 1,500 kilowatts (5-hour peaking power), subject to withdrawal.

(d) Additional excess energy produced at the USBR generating plants specified in the contract (at 1 mill per kilowatt-hour).

(e) Primary energy not needed to meet the monthly loads of the USBR and preference customers (at 1.9 mills per kilowatt-hour).

For the firm power and energy and secondary energy listed under (a) and (b) above, plus the use of valuable USBR reservoir space for daily, weekly, and seasonal storage, the IPC pays a lump sum of $127,250 per year (as amended). Data are not available in the present contract to separate the costs as between primary and secondary energy and the use of valuable USBR reservoir space and other related privileges.

(3) Provides the basis whereby the USBR may withdraw 1,500 kilowatts of peaking power and 2,737,500 kilowatt-hours of energy per annum from the IPC for sale to preference customers and Federal installations and outlines the basis whereby the IPC will wheel such power. (This withdrawal has been accomplished.)

(4) Provides that the IPC will furnish emergency service (standby) for USBR and its customers from its own resources or through purchases from others at such price as may be agreed upon between the parties. No recognition is given to the fact that the Federal generating plants may and probably do furnish emergency service to the IPC's system from time to time, and in this respect the contract should be made on a bilateral basis to the maximum extent possible.

(5) Provides for payment of what appears to be a penalty rate ($1.50/kw/month plus 1¢ per kwh) by the USBR if (i) the USBR fails to deliver the full amount of firm power and energy into the IPC's system to meet the USBR's firm power and energy obligations to the IPC, for the Bureau's own use and for the sales to preference customers under contract with the USBR, or (ii) the USBR or its preference customers use power and energy at rates in excess of the specific demand and energy schedules established for each installation or proference customer in the contract. (This penalty rate was reduced by the IPC in October 1954 to 30¢/kw/month of deficiency demand and ½¢ per kilowatt-hour).

(6) Provides for termination on October 31, 1963, or at any previous time by three years' advance written notice.

VI

That the said USBR and IPC, by contract No. 14–06–100–926, have provided for the following primary objectives:

(1) Provides an arrangement whereby the USBR can wheel a specified and rather limited amount of seasonal firm power to a specific list of preference customers and Federally owned installations over the transmission facilities of the IPC. The IPC, *at its option*, may increase the amount of power that may be wheeled.

(2) Provides the U. S. B. R. with a market for secondary energy, some of which is high-grade secondary energy being available at 100 percent load factor.

(3) Provides the U. S. B. R., with a market for dump energy at two mills per kilowatt-hour. (Dump power is divided between I. P. C. and Utah Power & Light Company.)

(4) Provides standby service for the U. S. B. R. upon payment of transmission charges therefor, and return of energy to the I. P. C. at a time specified by the I. P. C.

(5) Provides a method whereby U. S. B. R. can purchase from or through the I. P. C. such additional power and energy as may be necessary to make up any deficiency in Federally generated power supply for any reason at costs to be agreed upon between the parties. Specific amounts set forth in Subarticle 10 (a) of the contract, and in this regard may be considered to be unduly limited from the standpoint of the preference customers. It is noted that the I. P. C. anticipated the possibility that the U. S. B. R may reduce the amount of nonfirm seasonal energy being sold to the I. P. C. by selling such seasonal energy to other preference customers as the I. P. C. limits the amount of "so called" firming power that would be sold to the U. S. B. R. under the contract to the amount required to only meet the deficiencies in the contract demands of those customers specifically listed in this contract. Furthermore, the I. P. C. does not agree to wheel power and energy to preference customers in excess of the presently stated contracted demands.

(6) Provides for termination on October 31, 1976. This contract contains no provision for earlier termination.

VII

That the said U. S. B. R. and Utah Power & Light Company, hereinafter called U. P. & L., by contract No. 14–06–100–928, have provided for the following primary objectives:

(1) Provides interconnecting facilities between the Palisades generating plant and I. P. C. system.

(2) Provides for wheeling of firm power and energy to U. S. B. R.'s preference customeres in the Palisades area.

(3) Enables the U. P. & L. to purchase for an interim period at the low rate of 3 mills per kilowatt-hour all of the firm power and energy generated at Palisades that is excess to needs of preference customers.

(4) Provides the U. S. B. R. with a market for dump power at 2 mills per kilowatt-hour. (Both Idaho and Utah companies share in the purchase of this commodity.)

(5) Provides standby service to the system of the U. S. B. R.

(6) Provides a basis whereby U. S. B. R. can purchase additional power and energy from the U. P. & L. to meet the loads of the preference customers of the U. S. B. R., only during periods when supply from Palisades Project is insufficient to meet the specific loads of the preference customers set forth in the contract.

(7) Provides for automatic termination on October 31, 1976. This contract contains no provision for earlier termination.

VIII

That the U. S. B. R. Idaho system of power generation is not integrated with the Bonneville Power Administration, hereinafter called B. P. A., and thus assures the I. P. C. and U. P. & L. with a virtual monopoly of the Southern Idaho territory and deprives the U. S. B. R. of any future opportunity to integrate its various present and future hydroelectric projects in the Southern Idaho loop. When the Idaho system is suffering its worst power shortage due to heavy irrigation demands, the B. P. A. system has its greatest surplus of summertime power. When B. P. A. suffers a shortage of power in the late fall and winter, the Idaho system has plentiful power because the heavy pumping and irrigation load is past. Because of the lack of said integration and because of the provisions of said contracts above mentioned, the U. S. B. R., therefore, is selling excess energy when available in the Idaho system, and the Bonneville system, at dump power rates, at around two mills per kilowatt-hour, and acquiring Idaho energy when needed in those areas at higher rates, and because of the difference in time of seasonal demands in the two systems, the U. S. B. R. may find itself selling dump power in one area at the same time it is purchasing standby emergency power in the other area, and, therefore, integration of the two systems would save the government cost and provide additional energy for sale to the petitioner for its members.

IX

That the U. S. B. R. has no unified transmission system of its own, and therefore, must contract with I. P. C., U. P. & L., and others for the transmission of its electrical energy to its customers.

X

That surplus firm power and energy of preference customers of the U. S. B. R., of which the members of the petitioner corporation are not required by said customer within its allocated contract demand, cannot now be sold to and used by another preference customer whose loads exceed its contract demand, but is sold to the I. P. C. and U. P. & L. at dump rates. During the period in which the petitioner corporation is not able to purchase power requirements from the U. S. B. R. for its members, the members themselves should be permitted to work out adjustments in their contract demands by an agreement among themselves, so that the fullest opportunity is given to such members as a group to utilize all of the firm power available from the U. S. B. R. under all their contracts together before any such power is sold to the said I. P. C. and U. P. & L.

XI

That the U. S. B. R. has firm energy that is available from its generating plants during the season of the year, to-wit: April 1 to October 31, when the petitioner corporation's members have their greatest needs principally for irrigation projects; that the availability of said firm energy is determined on the basis of a study of the average megawatts produced by the U. S. B. R.'s generating plants over a 22-year period, October 1928 through September, 1950; that charts of said study are labeled Exhibit B–1 to B–4 inclusive, are attached hereto and by reference made a part hereof; that there is available transmission capacity with the I. P. C. and U. P. & L. for the wheeling of said available energy as shown by the said charts to the petitioner corporation for its members, if the same could be sold by the said U. S. B. R. to the petitioner and when transmission capacity is unavailable, the U. S. B. R. should construct transmission facilities of its own to wheel its own generated power to its customers.

WHEREFORE, the petitioner corporation prays as follows:

1. That the U. S. B. R. grant the petitioner a hearing upon this Petition where all available information and data could be adduced.

2. That the U. S. B. R. immediately reopen the above mentioned contracts with the I. P. C. and the U. P. & L. on the grounds of the restrictive language contained in said contracts, and by the means of termination of said contracts by

notice to obtain increased power supplies for preference customers, including the petitioner and its members; to increase the power revenues of the U. S. B. R. by the sale of its excess energy to the petitioner for its members instead of at dump rates, and to increase the amount collected by the I. P. C. and the U. P. & L. for wheeling additional amounts of power and energy to provide the vital power necessary by the petitioner for its members, to meet the demands at economically feasible rates.

3. That this Petition be deemed a formal application to the U. S. B. R. for all remaining firm power available from the Federally owned generating plants in Southern Idaho.

4. That the U. S. B. R. reopen its contracts with I. P. C. in order to effectively pool the deliveries to the members of the petitioner corporation and Federal installations, and thereby reduce the amount of firming energy which U. S. B. R. is presently required to purchase under present contracts with I. P. C.

5. That this Petition be deemed a formal application to the U. S. B. R. for the purchase of 15,000 kilowatts of high-grade secondary power now being sold to the I. P. C. to be paid for by the petitioner as firm power and energy.

6. To immediately take all steps necessary for the integration of the B. P. A. system and the U. S. B. R. Idaho system in order that surplus energy produced by the B. P. A. system during the period of shortage by the Idaho system be made available for purchase by the petitioner either through the B. P. A. or the U. S. B. R.

7. For any and all other considerations and relief as might secure to the petitioner available electrical energy for sale to its members in satisfaction of their present and anticipated needs.

/s/ RAY W. RIGBY,
Attorney for Petitioner;
Residence and Post Office Address: Rexburg, Idaho.

STATE OF IDAHO,
County of Madison, ss:

John L. Brog and Edwin Schlender, being first duly sworn, depose and say: That they are the President and Secretary, respectively of the Snake River Power Association, Inc., the petitioner herein named; that they have each read the foregoing Petition and know the contents thereof, and as to the matters and things therein alleged, affiants believe the same to be true.

/s/ JOHN L. BROG.
/s/ EDWIN SCHLENDER.

Subscribed and sworn to before me this ____ day of _____, 1958.

/s/ RAY W. RIGBY,
Notary Public for Idaho,
Residing at Rexburg, Idaho.

My commission expires: January 24, 1959.

Mr. RIGBY. A copy of that petition was sent to Mr. Nelson, regional director of the Bureau in Boise.

Senator CHURCH. What response have you had from the Bureau with respect to the petition and the request that is made in the petition?

Mr. RIGBY. Of course we realized that it was mailed from Rexburg on the 7th of May. That isn't very long ago.

Senator CHURCH. The Bureau hasn't had an opportunity as yet, really, to respond?

Mr. RIGBY. That is correct.

Senator CHURCH. Can you summarize just briefly for the committee the objective you seek here in this petition?

Mr. RIGBY. Yes, Senator. I think possibly in the prayer of the petition probably would be the best summary that I could give. We refer to it at length.

First, we request that the Bureau reopen these contracts by whatever means are possible. And as I said before, we would like to cooperate with the Bureau and furnish whatever help we can.

Senator CHURCH. What would be your theory as to grounds on which these contracts might be reopened for renegotiation?

Mr. TROMMERSHAUSEN. Senator Church, in that regard this was the most difficult problem that we undertook to analyze these contracts. When I finally completed them, and after the testimony this morning, I find there is a definite public interest base on which to do this. It seems that there are so many factors here that in this situation everyone can win. Everyone can win. Certainly if you have cooperation—and there are those elements in this problem—we ought to be able to do something about it.

If these contracts are reopened and a different arrangement made; the cooperatives can get the additional power they need; the Federal Government can get additional revenues; the Idaho Power Co. can get additional wheeling revenues; and the Bonneville Power Administration can obtain additional revenues for the Federal Government from the additional power they will make available to the Bureau for the coordination.

So there are enough elements in the public interest here where everybody can get something out of it. With that situation in mind it seems that it should be easy to open up these contracts and spread some of those benefits to everyone.

Senator CHURCH. Nothing is easy in this life, and the hardest problems are those that the lawyers have to deal with.

Thank you very much.

Have you something else to add, Mr. Rigby?

Mr. RIGBY. No. If you refer to the prayer of our petition, it pretty well summarizes the position of this group.

Senator CHURCH. Fine.

The hour is now a quarter past 5. I am willing to continue the hearing at this time so that all of those who are here from Idaho have the full opportunity to say what they want to say.

Either that or we can go over until tomorrow. It is just a matter of your own convenience.

If there is a way of indicating what further testimony you would like to put in, so that we would have an idea of how much longer this testimony will take, we can better arrange our schedule.

Mr. RIGBY. Senator, I do think we would like the engineer to make a little more lengthy statement than he has made. It is just strictly at your convenience, whichever you prefer. We can either come back tomorrow or do it now.

Senator DWORSHAK. In your studies, have you estimated the cost of a transmission line from Anderson Ranch to Minidoka Dam?

Mr. TROMMERSHAUSEN. No, sir; for the simple reason that the amount of power involved in this wheeling does not, in our opinion, justify a high-voltage transmission line.

Senator DWORSHAK. It would be too costly?

Mr. TROMMERSHAUSEN. It would be too costly for the Federal Government to build the Anderson Ranch-Minidoka section. The best arrangement, as was discussed this morning, is to use surplus capacity in existing transmission facilities. Obviously, there is enough capacity in those facilities, because this power is now flowing over those same facilities, but to a different party.

Senator DWORSHAK. To whom?

Mr. TROMMERSHAUSEN. To the Idaho Power Co. So, I would not expect that the capacity problem will be raised here.

Senator DWORSHAK. Thank you.

Senator CHURCH. Mr. Trommershausen, let me ask you this question: Your reply stimulates my interest in a little different direction here, before we decide on whether we should continue this until tomorrow. Let me ask you this one question tonight: The efficient utilization of this system depends upon the best use to which we can put existing transmission lines; is that not correct?

Mr. TROMMERSHAUSEN. That is correct.

Senator CHURCH. It certainly is in the public interest, as Senator Dworshak has brought out by wise questions, not to build duplicating Federal transmission facilities if present facilities would suffice to handle the power. That, in turn, depends, does it not, on the willingness of the Idaho Power Co. to negotiate wheeling agreements?

Mr. TROMMERSHAUSEN. That's right.

Senator CHURCH. At one time, was it not the procedure at the Department of the Interior, in cases where private lines were built over the public lands, to impose as one of the conditions for the use of public lands for this purpose the right to wheel public power insofar as excess capacity existed on the lines to do so?

Mr. TROMMERSHAUSEN. Senator, I cannot answer that question from direct knowledge. I do recall——

Senator CHURCH. There was some testimony this morning to that effect.

Mr. TROMMERSHAUSEN. I do recall, when I was with the Bonneville Power Administration, that there was considerable discussion concerning the use of capacity in a major transmission line that the Idaho Power Co. had under construction. I think the record will bear out that the Bonneville Power Administration at that time did attempt, and the Department of the Interior assisted and did attempt, to get use of surplus capacity in that transmission line.

Senator CHURCH. I think the record will clarify this point with respect to previous regulations of the Department and the changes that occurred.

What I wanted to ask you, specifically, Mr. Trommershausen, is this: If the Idaho Power Co. were to take a position adverse to wheeling arrangements whereby the Bureau system could be integrated with the Bonneville Power Administration system, then there is no present means of accomplishing this objective, is there?

Mr. TROMMERSHAUSEN. I referred yesterday to a problem to legal counsel for the Snake River Power Association. Although this may be too limited an application, I would like to call attention in the Palisades wheeling contract to the recital on page 2 of that contract, where it spells out the objectives by which power can be made available for the Bureau's customers:

> **Whereas it is desirable to have transmission interconnection over which the excess energy of the Bureau may be disposed of and over which arrangements may be made to obtain additional power energy to meet the presently contemplated loads of the United States in the event of the reoccurrence of low water conditions as a result of deficient precipitation * * ***

That is the basis on which this Palisades contract was prepared. I referred the attorney to section 14 of that contract, in which the me-

chanics are set forth concerning the procurements of additional power and energy for loads of the United States. And paragraph 3 (a) of section 14 has this to say, speaking of the manner in which the Bureau could get its deficiencies:

From sources of power available to the United States for which there is transmission-line capacity available on the company system as determined by the company * * *

Senator CHURCH. Do you mean there is an existing contract between the Bureau and the Idaho Power Co. under the terms of which you feel it might be possible for the Federal Government to insist that excess capacity that may be available as the company may determine it on company lines will be available for the wheeling of public power?

Mr. TROMMERSHAUSEN. Right. Of course, I am making an engineering——

Senator CHURCH. You are making an engineering interpretation of the contract.

Mr. TROMMERSHAUSEN. Yes, sir. This is a contract which is dated in April 1956. I could not discern from the contract whether Bonneville Power Administration could be construed as being a source of power available to the United States. If the lawyers can make that construction, then, under the terms of this contract——

Senator CHURCH. The question there would be whether this contract is to be construed as applying only to the Bonneville operation or whether it can be broadened to apply to——

Mr. TROMMERSHAUSEN. To the Bureau operation?

Senator CHURCH. Only to the Bureau, or whether it can be broadened to apply to the Bonneville Power Administration operation, as well?

Mr. TROMMERSHAUSEN. That's right, sir. And I recommended to the counsel for the Snake River Association that this be one of the matters that he check. It is not in the petition, because I just discovered it since rereading this contract for the hearings. It just seems to me that it could be opening the way for an expansion of the present wheeling agreement that the Idaho Power Co. has with the Bureau. I hope it can be worked out.

Senator CHURCH. I open up this approach, this line of inquiry, for this reason: It seems to me that there is a very real public interest involved in making the most efficient use of our public resources, and, where this entails the need for wheeling arrangements, and there is no present way, under existing law, to secure these arrangements should the utility owning the transmission lines in question refuse to do so, then I think we have a very legitimate question here posed that ought to attract the interest and attention of the Congress as to the need for providing legislation applying to the interstate transmission of electricity that would impose this requirement on the use of all facilities; that is, a reasonable requirement to make excess capacity available for wheeling purposes.

And I think that, if this hearing contributes to a better understanding of this problem and furnishes us a basis upon which we can ascertain the merits of such legislation, the hearing will be very worthwhile.

Gentlemen, I am informed by the Department of the Interior that Mr. Nelson will be available to the committee next Tuesday to testify.

And so I think that we should continue these hearings so that the Bureau of Reclamation has a full opportunity to present its side of the case that we have been considering today.

The hearing is scheduled for tomorrow morning at 10 o'clock. If it would meet with the convenience of you gentlemen, if you should like to come back tomorrow and testify, to complete your testimony, that would be fine. We will give you such time as may be needed.

We also have to hear from representatives of the Harney Co-op in Oregon who are scheduled to testify tomorrow. I think probably we should be able to finish up the hearing tomorrow morning and then continue it to give Mr. Nelson and the Bureau of Reclamation an opportunity to testify next week.

Mr. RIGBY. Senator, since we are on this question, I would like to add this: On the question of whether or not the Government has any power to use the existing transmission facilities of the Idaho Power Co., I would like to refer you to the use by the United States of the excess capacity of the transmission lines of the Idaho Power Co. which are parts of the Bliss development and which are licensed by the Commission's parts project No. 1975. And article 29 of that license refers to much the same as Mr. Trommershausen has testified, that the United States does have the right to transmit energy over those lines, as long as it doesn't unreasonably interfere with the use by the company itself.

You can have a copy of that for the record. It is that much more evident of what we have been talking about.

Senator CHURCH. That will be fine.

(The document follows:)

Article 29. The construction and operation of the transmission lines from the Bliss plant to substations near American Falls and Boise shall be subject to the following special conditions:

(i) The Licensee shall not convert said lines to permit operation at a higher voltage without prior approval of the Commission. Upon the request of the Secretary of the Interior under appropriate authority, the Licensee shall, after notice of at least one year from the Commission and within the time fixed by the Commission, convert said lines for operation at a voltage of 230 kilovolts at the expense of the United States.

(ii) After the initial construction of the lines or upon conversion of the lines to a higher voltage as herein provided, the Licensee shall permit the United States, and the United States shall have the right, to interconnect any of its transmission facilities with said lines in a manner conforming to approved standards of practice for the interconnection of transmission circuits provided there is capacity available in said line or lines in excess of the needs of the Licensee. The expense of such interconnection, including the expense of additional switching, relaying, and other protective devices, shall be borne by the United States, provided, however, that no such interconnection may be made without the prior approval of the Commission.

(iii) Upon completion of any such interconnections, the United States shall have the right to transfer energy over said lines as initially or ultimately constructed in such amounts as will not unreasonably interfere with the licensee's use of said lines provided that the Licensee shall be obligated to allow the transmission over the said lines by the United States of electric energy only to consuming facilities of the United States and to public bodies and cooperatives entitled to statutory preference in connection with the distribution and sale of electric energy by the United States.

(iv) After any such interconnection of the facilities of the United States with said lines, the licensee shall, except in emergencies, maintain in a closed position all connections under the Licensee's control between the Licensee's lines and the interconnecting facilities provided by the United States.

(v) Any interconnected power systems of the United States and the Licensee shall be operated in parallel and in such manner as to render good and adequate service. Any inadvertent flow of energy from the lines of the United States into said lines or from said lines into the lines of the United States which may occur while the lines of both the Licensee and the United States are electrically interconnected shall mutually be compensated for by later return in kind. Any scheduled transfer of energy over said lines for the account of the United States shall be settled for, or any investment in said lines made by the United States shall be liquidated, on reasonable terms under agreements which shall be negotiated between the Licensee and the United States, said agreements to be subject to approval by the Commission.

(vi) Until such agreements are completed, settlement for any such scheduled transfers of power shall be made on the following basis: If power and energy from the lines of the United States is transmitted over these lines, the monthly payment for such transmission shall be the amount of dollars representing that part of the monthly cost to the Licensee of the section of the line or lines over which the power and energy is transmitted which the maximum transmission by the United States in kilowatts during the month bears to the kilowatt capacity of such section of line or lines. The monthly cost to the Licensee referred to herein shall be computed in conformity with the uniform system of accounts prescribed by the Commission.

(vii) In the event the Licensee, its successors or assigns, during any period in which the United States is transmitting power over these lines, shall require reciprocal accommodations for the transfer of power from these project lines over any lines of the United States connected to said lines of the Licensee, such reciprocal accommodations shall be accorded to the Licensee under like terms and conditions as herein provided for the transfer of power from the lines of the United States over said lines of the Licensee, and the requirements of, and the obligations of the Licensee under, the provisions of Article 29 herein contained shall be contingent and conditioned upon such reciprocal rights being accorded to Licensee, subject to the conditions contained in Article 29 hereof, by any agency of the United States then utilizing the facilities of these lines under the terms of the license.

(viii) If, at any time subsequent to the date upon which the Licensee commences the transmission of energy over said lines for the United States, the Licensee notifies the Commission that the Licensee needs for the transmission of electric energy in connection with its operations the whole or any substantial part of the capacity of the said lines, or part thereof, then being utilized by the United States, and the Licensee makes satisfactory provision for reimbursement to the United States of the original cost to the United States of the facilities desired by the Licensee, less accrued depreciation on the investment of the United States, the Licensee may modify or revoke the then existing agreement to remain interconnected and to transmit energy for the United States by giving to the Commission 24 months' notice, of the Licensee's intention to utilize additional capacity or the entire capacity of the lines, or part thereof, as the case may be, provided, however, that the United States may continue to utilize any capacity in the said lines to the extent that said capacity, if any, was provided by the United States at its expense without reimbursement by the Licensee.

(ix) If at any time in the future the said lines of the Licensee are proposed for alteration or are altered, the Commission reserves the right, after 30 days' notice and opportunity for hearing, to make a determination as to whether the lines after such alteration, either proposed or actual, will be subject to licensing by the Federal Power Commission under the then existing laws and regulations, and in the event that the Commission finds that the said alteration in the lines, either proposed or actual, so changes the functions served by said lines and the source of energy transmitted over said lines as to make them, or any part of them, not subject to the licensing authority of the Commission under the then existing laws and regulations, the Licensee hereby agrees to secure authority for the continued operation and maintenance of the lines, or such part of the lines, from the appropriate agency of the United States then having jurisdiction over the lands of the United States occupied by the lines, or part thereof, and upon securing said authority the Licensee hereby agrees to surrender the license insofar as it authorizes operation and maintenance of the lines, or such parts thereof, which are found to be no longer subject to Commission jurisdiction. In the event that the Licensee should fail to surrender the license insofar as

it is applicable to the lines, or parts thereof, which may then be found by the Commission not to be subject to its jurisdiction, the Commission reserves the right to take appropriate action to have the license terminated with respect to said lines, or parts thereof, as provided in the then existing laws and regulations.

(x) Any agreement between the Licensee and the United States in connection with said transmission lines or related facilities shall be effective only upon approval by the Commission. In the event the Licensee and any agent of the United States are unable to agree with respect to any matter arising in connection with said transmission lines or related facilities, the question thereby raised shall be submitted to the Commission for determination.

Senator CHURCH. We will stand adjourned until tomorrow at 10 o'clock in the morning, in this room.

(Whereupon, at 5:27 p. m., the committee was adjourned, to reconvene at 10 a. m., Thursday, May 15, 1958.)

COLUMBIA BASIN PROBLEMS

THURSDAY, MAY 15, 1958

UNITED STATES SENATE,
COMMITTEE ON INTERIOR AND INSULAR AFFAIRS,
Washington, D. C.

The committee met, pursuant to recess, at 10:15 a. m., in room 224, Senate Office Building, Senator Frank Church presiding.

Present: Senators Richard L. Neuberger (Oregon), Frank Church (Idaho) (presiding), and Henry Dworshak (Idaho).

Also present: Goodrich Lineweaver, Benton J. Stong, and M. C. Mapes, special counsel.

Senator CHURCH. The hearing will come to order.

We will continue this morning with the Idaho witnesses who had not completed their testimony yesterday evening.

Mr. Schlender and gentlemen, if you will come and take your positions at the table, we will continue the testimony from the point at which we left off.

STATEMENT OF ED SCHLENDER, MANAGER OF THE RAFT RIVER RURAL ELECTRIC CO-OP ASSOCIATION, MALTA, IDAHO, AND SECRETARY OF THE SNAKE RIVER POWER ASSOCIATION; ACCOMPANIED BY RAY RIGBY, GENERAL COUNSEL; AND M. M. HINTZE, VICE PRESIDENT, SNAKE RIVER POWER ASSOCIATION; WILLIAM TROMMERSHAUSEN, OF R. W. BECK & ASSOCIATES, CONSULTING ENGINEERS; E. W. ROBERTS, MANAGER, FALL RIVER ELECTRIC CO-OP, ASHTON, IDAHO; E. H. PASKETT, PRESIDENT, BOARD OF DIRECTORS RAFT RIVER ELECTRIC CO-OP, MALTA, IDAHO; AND A. M. KASSEN, MANAGER, LOST RIVER ELECTRIC CO-OP, MACKAY, IDAHO—Resumed

Senator CHURCH. Mr. Schlender, if you would indicate for the committee the procedure you would like to follow this morning with respect to the remaining testimony, we can proceed accordingly.

Mr. SCHLENDER. Thank you, Mr. Chairman.

As we left off yesterday we had not heard the remarks from our consulting engineer that he had prepared along this line and at this time I would like to let him present his remarks.

Senator CHURCH. Very well.

Mr. TROMMERSHAUSEN. In the discussions yesterday, we had covered pretty well the Minidoka-Boise contract.

In answer to some of the direct questions, it became necessary to go into that contract. I did not have a chance to complete it nor discuss the Palisades contract.

There is one important element concerning the Minidoka contract that I think should be brought before the committee, because it bears on this matter of coordination.

You will find that the Idaho Power Co. has been given valuable use of Federal reservoir space and other related privileges at a rate of compensation that we cannot determine from the terms of the contract.

I might explain that further.

The purchase of peaking power, secondary, and the use of the Bureau's reservoirs of Anderson Ranch, Minidoka, and Boise is covered by an annual payment and so it is not possible to separate the payment for the peaking capacity, the secondary, and the reservoir space.

It would appear to me from another provision in that contract, which provides that the Idaho Power Co. will schedule the generation for the Bureau's plants, that if there is coordination achieved in those four Bureau plants, that the coordination benefits go to the Idaho Power Co. for which they pay the Bureau something.

We have recommended to the Snake River Power Association that that matter be reviewed by the Bureau of Reclamation. They have had 6 years' experience under the Minidoka contract to determine whether the annual cash payment that the company is making is adequate for the valuable privileges that the company has obtained thereunder.

Senator CHURCH. Is that recommendation contained in the petition that was placed in the record yesterday?

Mr. TROMMERSHAUSEN. I do not know that.

It was in our report, but I do not know about the petition.

Mr. RIGBY. Not specifically. We just recommended that all contracts be looked into with the general purpose of accomplishing the things contained in the petition.

Senator CHURCH. I see.

Mr. RIGBY. It is contained in the report which was submitted.

Senator CHURCH. Which was also included in the record yesterday?

Mr. RIGBY. That is right, the preliminary report by the engineer.

Mr. TROMMERSHAUSEN. The Palisades contract with the Idaho Power Co. covers wheeling of seasonal power to the Minidoka group.

The other contract with Palisades is with Utah Power & Light Co. I will not cover it here today. It covers the wheeling of firm power to the up-river cooperatives that are represented here by some other witnesses.

This contract, again, rather rigidly circumscribes the Government's wheeling rights and in doing so it makes it almost impossible for the Government to withdraw high-quality secondary for pumping use for the southern Idaho co-ops. It is the same restrictive type of contract as is the Minidoka contract.

Again, the contract is made tight with respect to termination in that the Bureau of Reclamation has modified and made inoperative their right to withdraw secondary energy from the company for sale to the preference customers.

I think that about concludes our remarks on the Palisades contract, except this: There was a question raised in the Chudoff hearings concerning the use of peaking capacity in the Palisades project. It is on page 1542 of the Chudoff hearings. It is not clear in the contract

whether the Idaho Power Co. has the right to use peaking capacity of the Palisades project. There is no provision for them to pay for it if they do use it and, inasmuch as the question was not answered in the Chudoff hearings, I think perhaps the Bureau should work further upon that and put the record clear as to the basis whereby the Idaho Power Co. can use the peaking capacity in the Palisades project.

Senator CHURCH. We should have an opportunity to clear that when Mr. Harold Nelson, the regional director of the Bureau, appears here next Tuesday.

Mr. TROMMERSHAUSEN. As to a few odds and ends, the question was asked yesterday whether I knew of any method whereby full utilization could be made of contract demand.

I have recalled since yesterday that there is an arrangement in the Missouri Basin area where 21 cooperatives have joined together under the East River Electric Power Cooperative. They buy a bulk block of power from the Bureau and trade it and use it among themselves.

That is one way that you can escape that problem.

Senator CHURCH. Would that be possible in the case of the Idaho cooperatives?

Mr. TROMMERSHAUSEN. Senator Church, that would require study. The South Dakota situation was relatively simple because the Bureau owned all the facilities and the Bureau could make clean-cut wheeling agreements with East River Cooperative.

The problem is more complicated here because you would have to have the Bureau negotiate a wheeling agreement for another public group.

I do not know whether there is any possibility of working out that problem on a group basis in Idaho because we do not have a transmission system to start with.

This morning the manager of the Raft River Cooperative asked me to review again some correspondence concerning the basis upon which they paid a surcharge in 1956. It is a lengthy three-page letter with several exhibits.

I might say that it was so complicated that I cannot understand fully the basis upon which they paid the surcharge.

That complex situation runs all through the contracts between the Bureau of Reclamation and the Idaho Power Co.

We were advised in a letter by one of the Bureau officials that—

> The American Falls contract of 1923 is a lengthy and complex agreement which we feel is difficult for one to understand and interpret without the benefit of considerable knowledge of the background and circumstances surrounding the contract.

I subscribe that that statement applies to all of the contracts between the Idaho Power Co. and the Bureau of Reclamation as far as I am concerned, and I have spent a great deal of study on them.

With respect to this payment of a surcharge in 1956, in part the payment appears to have been made because the Bureau had to withdraw from federally generated power the Idaho Power Co. which belonged to the Idaho Power Co. under the terms of the contract for delivery to the Minidoka cooperatives. I have raised the question with the attorney for the Snake River Power Association, inasmuch as the contract provides for 2,000 kilowatts of firm peaking power going to Idaho Power Co. under the contract, to see whether or not

that was in violation of the public preference to be selling 2,000 kilowatts of firm 5-hour peaking power to the Idaho Power Co. at a time when these cooperatives were short of power.

We have heard a great deal about the benefits of coordination and I certainly subscribe to the developments of all such benefits.

In rereading both of the Idaho Power Co. wheeling contracts with the Bureau of Reclamation again last evening, I do not find that they in any way anticipated the construction of Brownlee, Oxbow, and Hells Canyon. It would therefore appear to me that it would be very timely to again restudy the entire Bureau of Reclamation system in Idaho because certainly, if the Brownlee project has storage which improves the Bonneville projects downstream, American Falls, Palisades, Anderson Ranch, and Lucky Peak, the Idaho storage projects have storage which certainly will in some way benefit Brownlee.

Those benefits cannot be determined without a very comprehensive study. Perhaps the study should be made by the Bureau of Reclamation, or, since it involves upstream benefits, perhaps the integration and coordination study could be made by the Federal Power Commission, but in any event, it is clear to me now that such a study should be made.

In the discussion yesterday concerning the possibility of reopening the Idaho Power Co. contracts, I have come to the conclusion and have so recommended to the representatives of the Snake River Power Association here today that, because of these new factors that have come into the picture, because of the necessity for coordinating these projects, because the present contracts are so complicated that they cannot be understood without a great deal of costly study, and because complex contracts do not breed confidence, I think we are all going to be better off if we start all over again in Idaho.

I think there is a basis for canceling out the present contracts if all the parties are agreeable and working up an overall coordinating agreement that will achieve the public benefits that can be developed there and share them between the Bureau of Reclamation, its customers, and the Idaho Power Co.

It seems to me that that is a sound approach to a very difficult problem.

Senator CHURCH. I might say in that connection that there could quite possibly be a great many benefits derived from renegotiating these contracts, and it might well be that the public interest could best be served by renegotiating them. Whether or not a renegotiation of these contracts will, in fact, occur may depend upon the willingness of the Idaho Power Co. to do so. That is to say, there are legal questions here that go well beyond whatever merits there may be for the cause and there is a question in my mind as to whether or not there is a legal basis to reopen these contracts if the Idaho Power Co. should choose not to do so until such time as the contracts themselves expire and renewals would, of course, then be in order.

However, these are questions that cannot be settled by this committee, but would have to be settled by the attorneys and by the courts should it come to that.

Mr. TROMMERSHAUSEN. Senator Dworshak asked me a question yesterday which I could not answer fully concerning American Falls.

I have given it further study, sir. I find that American Falls,

which produces primarily seasonal power but does have some winter power, would be used in an area where there is extensive pumping need. Part of the power for north side pumping now is obtained from Palisades for which the Government must pay a wheeling charge to get Palisades power one hundred-some miles across the State to get it to the pumping area.

If the American Falls project is constructed soon and that power is used for those pumping units in the immediate area and the excess used for the Minidoka District and these cooperatives, the secondary now coming from Palisades can be used in the Idaho Falls area where there is also a tremendous demand for this dumping power. You will thereby release capacity in the Idaho Power Co. transmission lines for other purposes.

I think that is an excellent example of how you need to coordinate these projects, and if you will coordinate them completely, electrically, and hydraulically, no matter how you look at it somebody always benefits. That is just the nature of the situation.

With that in mind, I see no problem of going ahead with American Falls at the earliest possible date. In fact, I would like to state here that, because the American Falls installation as proposed by the Bureau of Reclamation for many years would make more efficient use of the water available at the site than the existing Idaho Power Co. plant because the later plant does not develop the full head at the site and in a period when there is a shortage of power for the pump irrigators in Idaho, it would certainly seem that the co-op and the Bureau of Reclamation and everyone concerned would want to make the most efficient use of the waters in Idaho.

Senator DWORSHAK. Do you know whether any of the power generated at the Minidoka plant now goes to the north side extension of Homestead?

Mr. TROMMERSHAUSEN. No, I do not. That is a detail that I have not studied in connection with this overall study.

I would like to make one final general statement. It is based upon some 20 years of experience in the Federal Government.

I know that there are times when there appear to be jealousies developing between agencies and bureaus, and whenever those jealousies get involved on a river development that needs to be fully coordinated, we have problems.

I have been personally pleased at the attitude shown by the Bonneville Power Administration officials yesterday in their testimony here in trying to resolve this coordination problem, and I am hopeful that when the Bureau of Reclamation comes next week that they will show the same cooperative attitude toward this coordination problem and that rivalry between bureaus working on the same river will not prevent us from achieving full coordination of the Snake and the Columbia Rivers so that everybody can have the benefits of the power that can be developed from that river.

Senator CHURCH. In that sentiment, I personally wholeheartedly concur.

Thank you very much, Mr. Trommershausen.

Gentlemen, is there anything further that you would like to say before we move on to the consideration of the Harney cooperative problem in Oregon?

Mr. Schlender?

Mr. SCHLENDER. Mr. Chairman, I would like to summarize what we had to finish up with and I would like to make one remark concerning these contracts which Mr. Trommershausen referred to, that to my knowledge the customers of the Bureau have never been consulted as to the negotiations of these contracts or the way in which they were drawn up. In fact, it is even sometimes difficult for us to determine what these contracts amount to.

I would like to read this short letter, addressed to myself as manager of the Raft River Co-op on November 21, 1956:

DEAR MR. SCHLENDER: Pursuant to your request of October 31, 1956, there is enclosed copy of the contract between the United States and the Idaho Power Co. dated April 10, 1956, contract No. 14-06-100-926. Since we only prepare such copies of contracts to take care of our needs our supply of copies of this contract is limited. We would, therefore, appreciate you returning the above contract when it has served its requirements.

Very truly yours,

WILLIAM H. TULLER,
Acting Regional Director.

Therefore, we respectfully suggest that, since we have shown such good reason here why we think the United States Bureau contracts with the Idaho Power Co. should be reopened and renegotiated, that any further contracts between these agencies should come before this committee for review.

I would like to bring you up to date with where we stand right now on this matter of where our interest is in achieving this problem of coordination between Idaho Power Co. and the Northwest Power Pool.

Since we learned that this had to be done, we carried on extensive correspondence with the various agencies to find out what we could about it, and we got no definite information from the United States Bureau of Reclamation except that they were studying the proposition.

On December 13, 1957, I did receive a phone call from Mr. Harold Nelson, the regional director of region 1. He said that the benefits of integration looked good on the face of what they had studied, but in 3 days he was to meet with the Bonneville Power Administration and find out what they had to say about it; that it would be up to the Bonneville Power Administration to determine what these benefits were, and that he would give me an immediate report as to the results of his meeting with them.

However, February 19, 1958, was the last and only contact that I have had with him when Mr. McIntyre, of our local Bureau of Reclamation office, and Mr. Bagnell, of the Bureau, called on me at my office and told me that, although it was not yet an official directive from the office, he knew at that time that it was soon to be an official notice to me that there were no benefits to be derived and that there would be no integration.

I got that definite understanding from Mr. McIntyre.

However, on April 18, 1958, I had a discussion with Mr. Miller Evans, of the Bonneville Power Administration, and he told me that Bonneville Power were ready and willing, that there were great benefits to us to be derived from integration; however, their agency could do no more because it was up to the Bureau; since we were the Bureau's customers, it was up to the Bureau to take the steps to see if we

could not achieve this integration so that, on May 7, 1958, we submitted the petition which we showed here yesterday. I would like to say that that had no significance or bearing at all upon the convening of this committee, because it just so happened that that was the course of business at the time that this petition was ready to be served.

I would like to point out that in this petition we propose to pay the Bureau for this 15,000 kilowatts that we have asked. We propose to pay them firm-power rates for this energy.

I want to point out, too, that the key to this whole thing, in our difficulties with obtaining an adequate supply of reasonable cost power in southern Idaho, has been the fact that the Bureau contends that they cannot buy any power to supplement their generation resources; that it is against the law for them to buy any power for this purpose.

Yet, on page 22 of the Burns Creek report, they proposed to do just that. They propose to buy power from any source that is available to them to supplement their generation. I would like to know why they can do that at this date when they proposed the Burns Creek project but cannot have done it in the past when we were so definitely short of power.

Therefore, in summary, I would say that we see no reason why integration between the United States Bureau of Reclamation in the Snake River Basin and the Bonneville Power Administration should not be and cannot be achieved.

Idaho Power Co. will not lose any preference customers as a result of this, I am sure, because, to my knowledge, they only serve one preference customer in the State. Furthermore, they have no established rate for wholesale customers who buy for resale. They have not had any business of this type in the State to speak of.

We think that coordination between the two Federal agencies should automatically include wheeling to the preference customers in southern Idaho. Because of the reason stated here yesterday, that intensive studies of the Idaho Power Co.'s system had to be made before this integration could be achieved since the Bureau of Reclamation's generation sources are integrally a part of the Idaho Power Co. system, if Idaho Power is to integrate with the Northwest power pool, we think that that should automatically include the furnishing of power to the preference customers.

In closing, I would say that our interests are entirely devoted to the public interest. We are dependent on the Idaho Power Co. to serve, and we are ready and willing to cooperate with the Idaho Power Co. and the United States Bureau of Reclamation or any others to achieve integration of the two Federal systems that would result in the public interest being served.

I am sure that the Snake River Power Association members greatly appreciate the opportunity to appear before this high committee and to have your gracious attention to our serious problems.

Senator CHURCH. Thank you very much, Mr. Schlender. It has been a pleasure for the committee to have you here. We appreciate your very helpful and informative testimony of yesterday and this morning. On behalf of the committee, I want to thank you all for coming.

Senator Dworshak, do you have any questions you would like to ask before these gentlemen leave?

Senator DWORSHAK. No; I have no questions. I want to commend the witnesses for their manifestation of cooperation in trying to work out a successful policy for maximum utilization of the resources in southern Idaho.

It is obvious that we face many peculiar problems which do not confront other areas, and I think that, if we are to achieve maximum development, it will require the full cooperation of the Federal Government, its various agencies, Idaho Power Co., these cooperative consumers of power, municipalities and others, because we can solve the problems if we have the will and determination to do so.

Mr. HINTZE. Thank you, Senator Dworshak.

Senator CHURCH. Mr. Mapes, do you have any questions?

Mr. MAPES. I have one question especially for Mr. Trommershausen. I happen to have a copy of the 1954 report on the load growth in the area. Could you provide the committee with an estimate of the future load growth in your system?

Mr. TROMMERSHAUSEN. Mr. Mapes, in answer to your question, I believe the petition which has just been submitted gives a combined forecast. Is that satisfactory, or would you want it for the individual cooperatives?

Mr. RIGBY. Let me say, Mr. Mapes, that the petition contains future load growth representative of the area, but not of all members. Of course, this is a new organization. Members are coming in each day. We can supply that for each one. It will take some time to do it, but we have some representative members and their future load growth, and it is based on a very comprehensive study under the practices that have been developed by the REA.

Mr. MAPES. I think that probably would be adequate for the purposes of the committee.

Mr. RIGBY. It will give you a very representative future. We are sure of that. But we do not have the report on each member of the association.

Mr. MAPES. I think that is important. If we can get some estimate of what percentage of the total demand in the area that would comprise, that would be helpful.

Mr. RIGBY. The petition will do that.

Mr. MAPES. Thank you.

Senator CHURCH. Thank you very much, gentlemen.

The committee is pleased to hear from Senator Watkins at this time.

STATEMENT OF HON. ARTHUR V. WATKINS, A UNITED STATES SENATOR FROM THE STATE OF UTAH

Senator WATKINS. Mr. Chairman, much of the ground covered by this committee's hearings on the coordination of Brownlee storage with the Northwest Power Pool involves actions required by, and subject to review by, the Congress' own expert body, the Federal Power Commission.

However, there is at least one matter brought up in these hearings which is not within the jurisdiction of the FPC and which I feel this

committee should consider in an extension of these hearings. This is the matter of downstream power benefits from upstream storage.

As witnesses have pointed out to this committee, the 1 million acre-feet of water stored at the Brownlee Reservoir will be released annually and pass through the turbines of 4—ultimately 8—Federal hydro-power dams downstream. This storage, financed by an Idaho company and paid for by power users in Idaho and eastern Oregon, will confer immediate hydraulic benefits of up to 46,000 kilowatts of power to the Federal power system downstream. Ultimately, the downstream benefits will amount to 110,000 kilowatts annually.

Now, what does this mean in dollars to the Bonneville Power system?

A BPA witness yesterday indicated that the answer to this question is involved, and that many answers could be produced by different interpretations and combinations of the factors involved. However, I have made a rough analysis, to come up with a reasonable figure that can be understood by the layman and justified from the engineering standpoint.

The figure of $17.50 per kilowatt is accepted as the base charge for power from the BPA system. However, there is a line loss of 5 percent in transmission, which is more than compensated by the additional energy made available because of the fact that few electricity customers can use their top or "peak" load of power 24 hours a day. This variation in load has been computed at 80 percent for the average kilowatt, and the application of these 2 factors produces an estimate of $19 per kilowatt-year.

This estimated revenue, however, must be further reduced by deduction of the cost of transmission. For the BPA system, this is estimated at $7 per kilowatt. Deduction of this amount from the above total, leaves an estimated revenue of $12 per kilowatt annually.

Inasmuch as the water released from Brownlee will flow downstream largely during the period of reduced flow on the Columbia, it is assumed that it can be used for generation by existing facilities with little, if any, additional investment. Hence, the assumption is made that the 110,000 kilowatts that can be produced at the 8 completed and proposed Federal dams downstream from Brownlee, ultimately will yield an annual revenue of $1,320,000. By 1962, four dams—Bonneville, The Dalles, Ice Harbor, and McNary—should produce a yield of nearly a half million dollars annually. I would say that this is essentially clear profit, without any considerable investment on the part of the Federal Government.

On the TVA system, which is accepted by many as the "model" for river basin development, a similar situation existed in connection with a storage-power dam that the Aluminum Company of America wanted to build on the Tennessee River. It is my understanding that such a dam was built under an arrangement worked out between TVA and Alcoa, wherein the aluminum company shares equally in the downstream power benefits conferred by its upstream storage.

I am not familiar enough with this aspect of the TVA system to say whether such an arrangement will work on the Columbia River.

However, I do feel that it is not just and equitable for the taxpaying consumers in Idaho and eastern Oregon to be denied participation in a half million dollars in increased power revenues which its storage

facilities will be contributing annually to the Bonneville Power System, by 1962.

If nothing else, these easily identifiable power benefits should be reserved and dedicated to construction of water resource projects in the State of Idaho and in the eastern Oregon sector of the Idaho Power distribution system.

I haven't had time to make a study to see if a comparable situation exists relative to dams on the upper Columbia in Montana. But if the residents of Montana are making a comparable contribution to downstream power generation, then I feel that these people in that upstream State should likewise be given consideration for these downstream benefits.

I am not here to propose a formula for dealing with this complex problem. But we have some technical experts on the committee staff, and I feel that they should explore this matter as the staff representatives of all the people of all of the 48 States.

Under these circumstances, I hereby propose to the chairman that such a study be ordered as a continuation of these hearings.

Mr. Chairman, in closing, I also request consent to introduce at this part of the record, a statement I introduced into the Congressional Record of August 20, 1956. It deals with this matter of downstream benefits, and provides statistical data to support the position I have taken.

(Statement referred to follows:)

THE FACTS ON THE DEVELOPMENT OF THE HYDROELECTRIC POTENTIAL OF HELLS CANYON REACH OF SNAKE RIVER ON THE IDAHO-OREGON BOUNDARY

Statement by Senator Arthur V. Watkins, with tables, appearing at pages A6530–A6531 of Congressional Record of August 20, 1956

To compare the three-dam plan licensed by the Federal Power Commission to a privately financed electric power entity with a high-dam plan to be federally financed is possible, but this requires a careful analysis of the facts and the rules controlling each proposal.

The licensee, in this instance, is the Idaho Power Co., and the Federal construction agency would be the Bureau of Reclamation. The company may not be paid for downstream benefits to Federal powerplants that result from regulation of the waters of the stream. The Federal project may credit its operations with the net value of downstream benefits to both Federal and privately owned plants, and from the latter class it may collect that value in dollars.

A Federal development does not pay taxes, but a privately financed development must. In both cases American citizens would be served by the production of electric power and service. It is estimated for the year 1955 that the private electric industry in the country, as a whole, received in operating revenues $6,930 million; that of this amount $625 million was paid in State and local taxes, being 9 percent of the operating revenues; $1,014 million was paid in Federal taxes, being 14.6 percent of the operating revenues. The sum of these taxes is 23.6 percent of the operating revenues.

The records of the Federal Power Commission show that the Idaho Power Co. paid $3,870,000 annualy in Federal income taxes, and $3,300,000 in State and local taxes for the year 1954. These amounts happen to be 3 percent on the investment of the company for Federal taxes and 2.42 percent on the investment for State and local taxes.

There are, admittedly, downstream benefits for power, flood control, and navigation from the operation of the three-dam plan in Hells Canyon reach of Snake River. These benefits are paid for by the users of the power which is generated at the three dams and sold to consumers, and thus will not be paid for by the beneficiaries downstream, under present rules and regulations. It appears that the law will soon be changed in this particular.

In the voluminous hearings before the Federal Power Commission on the application of Idaho Power Co., and in the hearings before the Senate Interior Committee on S. 1333, there were presented many interesting factual data about which there were no questions as to their validity. The Federal Power Commission had the duty to determine the best plan for development of this portion of Snake River. To do so they reduced the various plans to the common denominator of Federal financing and construction. Thus, this record must be searched and analyzed carefully to find what data, together with the testimony before the Senate Interior Committee, were presented which could be correlated to show plainly and directly the comparable facts which bear on the economics of the two plans. I have had these data reduced to four tables in order that physical and fiscal comparison may be reduced to understandable terms.

From what I have said and what I shall say with respect to these data will clearly indicate that the job of supplying electric power to our people would be more equitably accomplished if there were no Federal taxes on privately owned systems, and if federally owned projects were required to pay the same State and local taxes as others.

It is common knowledge, I think, that Federal income taxes on the electric power industry are paid by the users of electricity. To tax these industries is to tax the people; the many investors in private industry actually are not paying for the privilege of supplying power because it is permitted them to earn a reasonable income on their securities.

I now refer to the technical data available to analyze and compare these two plans about which so much ill-advised controversy has been raised. In the Hells Canyon reach there is a total fall of 602 feet. When dams are built, this fall is converted to a head, and the use of this head is the means of converting falling waters into electric energy. Both plans develop this head of 602 feet. In the three-dam plan, the variation in the head is only 101 feet, because that is the maximum drawdown on the storage unit at Brownlee Dam. For the high dam, the maximum drawdown is 289 feet, and thus, the head will vary from 602 to 313 feet. The high dam will produce a little more power because it captures floodwaters which are not usable except with a larger storage volume.

I have assumed, as did the Federal Power Commission, that power data supplied by three certain engineers were the best in the large volume of evidence taken. These three engineers were from the Bonneville Power Administration, the Bureau of Reclamation, and the Federal Power Commission. These experts did not represent the licensee. In making allowances for upstream increases in irrigation use and the determination of critical periods of water supply to be firmed by storage, these engineers varied only about 5 percent in their estimates of "nominal prime power." This term, "nominal prime power," is the capacity of an installation plus other installations under conditions of specific period factors and integration with a connected power system for a simultaneous period of time. I have taken the average of the values submitted by these engineers as the best figures available. For the three-dam plan, the prime power at site is 565 megawatts with downstream benefits of 110 megawatts. For the high dam at site the prime power is 646 megawatts, and downstream benefits of 278 megawatts. At the site, then, there is a difference of only 81 megawatts. These data appear in my table A.

I stated that the foregoing values were the averages of data submitted by three witnesses. I note that the data of the Federal Power Commission witness is practically identical with the average. I find in the testimony that he made a special study of actual energy output for the 20-year period of streamflow records, 1929–48, allowing for about 8 percent more irrigation depletion than the average of the three witnesses who computed estimates for normal prime power. The average energy output of the period is as follows:

[Megawatts]

	3-dam plan	High dam
At site	546	634
Downstream benefits	59	113

The difference at the site is 88 megawatts; whereas in prime power calculations, the difference at site was 81 megawatts. I hold that this study of energy output is the test of the projects. It is what would have been produced by them

over a 20-year critical period containing years of high variation in streamflows and also containing the critical months for which storage uses must be relied upon.

When I have mentioned downstream benefits, I have done so on the basis of these engineers, and they included the following downstream powerplants, as if they were in full operation: Bonneville, The Dalles, John Day, McNary, all on the Columbia River, and Ice Harbor, Lower Monumental, Little Goose, and Lower Granite, which are on the Lower Snake River. The average megawatts of output are shown on my tamble B. Table C includes general data and comparisons between the two plans for the proposed developments. The data shown are comparable one with the other for each plan, excepting that item 2 for the three-dam plan shows the cost per kilowatt-hour at 3.8 mills, which is not based upon item 11, but which is the accepted cost of constructin by the licensee. The 3.8 mill figure is based upon Federal construction costs, which is nearly $50 million greater than the bid for constructing the three-dam plan.

There was an estimate in the Federal Power Commission hearings of $21 million for transmission lines to market the power of the licensee, the Idaho Power Co. It is understood that this would bring the power to Boise, or to a similarly situated market. To connect the high dam with the Northwest power network is estimated to cost $77 million. The two latter items appear in item 13a of the table. For the high dam plan, in order to supply the downstream benefits, the transmission cost was estimated to the $146 million. I have used the costs for the high dam and the transmission lines as given before the Senate Interior Committee. The combined cost of those items comes to about $55 million less than that testified to before the Federal Power Commission. A footnote on table C indicates the place where these values may be found. Since contracts have been let for the two-plant units of the licensee, there now remains little question of the sufficiency of the estimate of $133 million to cover the cost of the three-dam plan exclusive of transmission.

At the beginning, I said that it was possible from the evidence available to compare the two plans. The data are arranged in my table D. The at-site costs have been substantiated. The annual costs for operating the projects are:

For the 3-dam plan, $8,400,000 for operation, maintenance, replacements, and depreciation, and fish facilities, together with fixed costs including interest on the investment. When there is added the Federal income tax on the basis now being paid by Idaho Power Co., and similarly local and State taxes, the total annual cost is $15,400,000. This results in 3.21 mills per kilowatt-hour of average generation over the 20-year period previously mentioned. If Federal taxes were deducted, the cost is 2.38 mills per kilowatt-hour. If all taxes were eliminated, the cost would be 1.75 mills per kilowatt-hour.

For the high dam, there are no taxes, and I have assumed the annual cost to be that testified to by the Federal Power Commission engineer, who computed the average energy output over the 20-year period. The cost is 2.71 mills per kilowatt-hour. If there is added to the annual cost of the high dam local and State taxes at 2.25 percent of the allocation to power, at site, ($278 million), the total annual cost would be $21,300,000, and the cost per kilowatt-hour would be 3.83 mills. But, I have compared these kilowatt-hour costs at site for the reason that the licensee can receive no compensation for downstream benefits for power, or flood, control, or navigation. The high dam, federally owned, can and does take credits for these downstream benefits. These credits are reflected in the annual cost as reduced to $15,045,000. If this were not done, the costs of power development for both plans would be approximately 3.2 mills per kilowatt-hour, in spite of the fact that the 3-dam plan carries $7 million annually in taxes, and the proposed Federal project carries none.

These startling data reveal the inequity of our treatment of our citizens. I have suggested a formula for equalizing the item of taxes. It is this: Relieve the privately financed generation industry from Federal income tax, and require that Federal projects pay local and State taxes. Consumers are entitled to such fair and equitable treatment.

The difference in power costs to the consumers in these plans is insignificant. To develop an additional 88 megawatts at site would require an additional expenditure of $328 million minus $133 million, or $195 million. This is $2,220 per average kilowatt of incremental output. No one could justify such a cost to the Nation's taxpayers, who would have to advance the money for so little gain in power. If we use the 142,000 additional kilowatts in downstream benefits, the cost would be $1,375 per average kilowatt of incremental output. That is still four times too high for fiscal justification.

The additional 142,000 kilowatts is less than 1 percent of the power requirements of the Northwest by 1980, which according to the Federal Power Commission studies will be 17 million kilowatts. We certainly can find, without any difficulty, places to develop 1 million kilowatts with just the saving of $195 million.

We have heard a lot of talk about something of little consequence. Yet, there has been saved the Nation's taxpayers nearly a half billion dollars that is needed for a multitude of better projects in the West. More important is the fact that the plan under construction has better economics. That the Federal Power Commission made a good decision under pressure of bitter opposition is a sign we should recognize for what it is, namely, the removal, here, of a development of natural resources from purely partisan politics.

DEVELOPMENT OF HYDROLECTRIC POWER IN HELLS CANYON REACH, SNAKE RIVER

TABLE A.—*Estimated nominal prime power in average megawatts*

[Physical data]

	3-dam plan	High dam
Maximum head, feet	602	602
Minimum head, feet	501	313
Maximum variation, feet	101	289

Basis: Minimum release of 2,000 cubic feet persecond; add itional irrigation of 520,000 average acres; downstream powerplants, Bonneville, The Dalles, John Day, McNary, Ice Harbor, Lower Monumental, Little Goose and Lower Granite; critical period, average 29 months.

Estimated nominal prime power

Witness	At site	Downstream	At site	Downstream
McIntyre (B. P. A.)	585	117	647	314
Riter (Bureau of Reclamation)	550	105	654	257
Meadowcroft (FPC)	559	109	637	264
Averages	565	110	646	278
Average total	675		924	
Difference		249		

NOTE.—Relatively little variations between witnesses.

TABLE B.—*Estimate of average annual energy in average megawatts of output*

	3-Dam plan		High dam	
	At site	Downstream	At site	Downstream
Average annual energy, in megawatts	546	59	634	113
Total	605		747	
Difference		142		
Difference at site		58		
Difference downstream		54		

Basis: Additional irrigation, 563,000 acres; average of the 20-year period, 1929–48.

NOTE.—The estimates are from the testimony of Witness Meadowcroft. Table A indicates this witness' calculations are nearly the average of the three used.

NOTE.—This table shown estimated actual generation of power; 8 downstream plants in operation.

TABLE C.—*General data*

	3-dam plan	High dam
1. Power output (prime) (kilowatt) total.	675,000	924,000.
1a. Power output (prime) (kilowatt) at site.	565,000	646,000.
2. Power costs (per kilowatt-hour)	3.8 mills [1]	2.7 mills.
3. Active storage (acre-feet)	1,000,000	3,880,000.
4. Flood-control benefits (annual)	$1,000,000	$2,300,000.
5. Navigation benefits (annual)	$108,000	$189,000.
6. Recreation benefits (number annual visitors).	250,000 to 325,000	500,000 to 650,000.
7. Power revenues for aid to future reclamation.	Yes, if Congress directs	Yes, if Congress directs.
8. Availability of power to entire region	Yes, required by FPC	Yes.
9. Development of phosphate fertilizer	No appreciable differences	No appreciable differences.
10. Development of electro-process industries.	do	Do.
11. Cost of project (less transmission lines).	$133,000,000	$328,000,000.[2]
12. Best plan	Unanimously approved by FPC.	
13. Cost of transmission lines, total, including downstream plants.		$146,000,000.[2]
13a. Cost of transmission lines at site	$21,000,000 [4]	$77,000,000.[2]
14. Benefit-to-cost ratio	2.13 to 1 [5]	1.83 to 1.

[1] Based on Federal construction costs.
[2] P. 485, Senate hearings.
[3] P. 489, Senate hearings.
[4] FPC hearings.
[5] FPC brief, April 1956.

TABLE D.—*Cost estimates*

	At site	
	3-dam plan (private development)	High dam (Federal development)
Cost of structures	[1] $133,000,000	[2] $328,000,000
Annual cost (O. and M. and depreciation or amortization)	[1] $8,400,000	[2] $15,045,000
Estimated Federal tax [3]	[4] $4,000,000	None
Estimated local and State tax	[4] $3,000,000	None
Total annual cost	[4] $15,400,000	$15,045,000
Average annual million kilowatt-hours at site	[5] 4,793	[5] 5,554
Cost per kilowatt-hour—mills	3.21	2.71
Cost, less Federal tax—do	2.38	
Cost, less all taxes—do	1.75	

[1] Table 3, appendix A of FPC brief of staff counsel, and 5.48 percent for interest and depreciation. See p. B–94, staff brief, FPC including fish facilities.
[2] Testimony before Senate Interior Committee, p. 485 of hearings, and appendix C of respondents brief of April 1956. Table 1, average of lines 11 and 14, col. 6.
[3] Income taxes passed on to consumers.
[4] FPC brief (p. 22) gives a higher annual cost, but this is based on Federal construction estimates of cost. Basis for taxes from records of Federal Power Commission. See footnote 1 of table C.
[5] Values of table B multiplied by 8760.

Basis: Testimony before Federal Power Commission, and before Senate Interior Committee. Transmission costs not included.[a]

[a] Transmission costs to market average, generally, 1.1 mills per kilowatt-hour for Federal construction.

NOTES ON STATEMENT OF SENATOR WATKINS REGARDING S. 1333

Subject: Power.

The origin of the data in table III of the discussion of S. 1333 is in the brief of the Commission staff counsel, Federal Power Commission (dated November 1954).

The installation in kilowatts has been assumed by all interests to be as shown in table III. The nominal prime power for high Hells Canyon Dam is the average of the testimony of three witnesses appearing in table 1.

Likewise, the nominal prime power of the 3-dam plan is the average of the testimony of the same 3 witnesses and appears also in table 1 of the brief. These witnesses are McIntyre of the Bonneville Power Administration; Riter of the Bureau of Reclamation; Meadowcroft of the Federal Power Commis-

sion. The Federal Power Commission conisdered that the best testimony with respect to the power production during the 20-year period of 1929–48 was presented by these witnesses and their estimates were averaged. However, the spread was 5 percent or less and the critical periods used for this determination varied from 23 to 34 months.

Considering complete integration of both high dam and three-dam plans with the Northwest power pool, as is required also by the Federal Power Commission license to the Idaho Power Co., the average annual generation of the 20-year period of study appears at pages 21 and 22 of appendix A of the brief for both plans. This estimate is by witness Meadowcroft. The other two witnesses mentioned above did not make this computation. To get the breakdown between the total energy at site and at future and lower plants downstream, exhibit No. 367 was used. The average annual generation in table III in millions of kilowatt-hours is thus divided to show generation at site as well as generation at the downstream plants.

With respect to table IV, the annual generation at the site in average kilowatts is computed as shown on the table from data of table III.

As to the costs of the project, these were supplied in the testimony during the hearings of the Senate Interior Committee. I call attention to the fact that the cost of the high dam is between 50 and 60 million dollars less than the testimony presented to the Federal Power Commission.

The costs of the 3-dam plan now under license is not a matter for argument because a contract has been let for the construction of 2 of the units which cover most of the cost, and it is common knowledge that the price for all 3 is less than $133 million. The committee had no testimony on the cost of the transmission system required for the 3-dam plan, but this item was found in the hearings before the Federal Power Commission and an average of 2 or 3 estimates is used in table IV.

Total cost of the high dam together with transmission costs is from pages 485 and 489 of our hearings.

Senator CHURCH. Thank you, Senator Watkins.

Our next witnesses are from the Harney Electric Cooperative, of Burns, Oreg. We have here this morning Mr. Robert E. Cole, who is the manager of the Harney Electric Cooperative; Mr. Lloyd Hill, who is the vice president of the cooperative; and Mr. Lee Wooden, who is the president of the Oregon Rural Electric Co-op Association.

It is the understanding of the chair that these three gentlemen would like to appear together to give their testimony this morning. Let me say that we are very happy to welcome you, gentlemen. We appreciate the long trek that you have made to Washington. We are hopeful that the proceedings of the committee here will prove helpful to you and to your problem.

Senator NEUBERGER. I would like to thank the Senator from Idaho for those remarks, and just to point out, as one of the Senators from Oregon who requested this hearing, that I am grateful to the Senator from Idaho for the personal interest he has taken in the problem of a power supply for the Harney Electric Cooperative.

Senator CHURCH. I understand that you have some prepared statements that you would like to make. As I have suggested to other witnesses who have appeared heretofore, in the interests of saving as much time as possible so that all witnesses can be heard and questions can be asked and answers given, if it is possible for you to summarize the information contained in your prepared statements, it will be helpful to the committee because the entire text of the prepared statements will go into the record where it will be available for reference and for careful study.

I leave this with you, but it would be helpful to us if you could proceed by way of summary of this statement and then we will have time to ask such questions as may be indicated.

Please feel free to proceed.

STATEMENTS OF ROBERT E. COLE, MANAGER, HARNEY ELECTRIC COOPERATIVE, BURNS, OREG.; LLOYD HILL, VICE PRESIDENT, BOARD OF DIRECTORS, HARNEY ELECTRIC COOPERATIVE, INC., BURNS, OREG.; AND LEE WOODEN, PRESIDENT, OREGON STATE RURAL ELECTRIC COOPERATIVE ASSOCIATION, JEWELL, OREG.

Mr. COLE. My name is Robert E. Cole. I serve as manager of the Harney Electric Cooperative, comprising 477 miles of powerlines in the northern part of Harney and Malheur Counties in Oregon. We now have 428 services, with a potential of at least 643 for which the co-op has signed applications. A portion of the potential is in the extreme northern part of Humboldt County, Nev.

Before going further, I think I should offer apologies on the part of the co-op for interrupting this hearing.

We realized yesterday that the Idaho Power Co. could not be here because of their itinerary. I think it is only fair to mention that on Monday of this week they attended our annual meeting en masse, you might say. I believe there were nine representatives there from the Idaho Power Co., which included Mr. Kail, Mr. Hoag, Mr. Dillard, and there was another gentleman who was superior to Mr. Hoag. I believe his name was Kimball. I am not sure. There were other representatives, whose names I cannot give at this time, but I wanted to point out that there appears to have been some conflict, and our annual meeting was more important than these hearings.

Senator NEUBERGER. Where was the annual meeting held?

Mr. COLE. Crane, Oreg., 9 miles from Burke.

Senator NEUBERGER. Nine representatives of the Idaho Power Co., you say, attended your annual meeting at Crane?

Mr. COLE. Yes.

Senator NEUBERGER. I think it is quite interesting, Mr. Chairman, that 9 representatives of the Idaho Power Co. were able to be in Crane, Oreg., but not 1 was able to be in Washington, D. C.

Mr. COLE. I think it is also only fair to say that Mr. Hill and myself attended that annual meeting, also, and were able to make those necessary arrangements. We were a little short on sleep, but we made it.

With the committee's approval, we would like to present our testimony in two parts. Mr. Hill, vice president of the board of directors, will outline the general area to give you a brief picture of the area, its location and activities. I would then like to base my testimony on the co-op and its problems.

I would like to ask Mr. Hill to give a picture of what it might be.

Mr. HILL. My name is Lloyd Hill, and I have ranched in Harney County all of my life. I have observed the many years of development in this area and realize the significance and importance of changes in the area. I started my ranch back in 1915 with four head of cattle, and since that time have constantly worked toward the development of my ranch with a sincere belief that Harney County's

agricultural potential could be developed. One change of particular importance was the realization of electricity in the area.

I operate a ranch comprising some 10,000 acres of deeded lands plus other Federal lands which I lease for grazing purposes for my cattle. On my ranch I run some 550 head of quality Hereford cows.

Through the years I have noticed the change and desires of the people of the area to establish a higher standard of living. Electricity has shown the way for this objective. I am making these remarks mainly to indicate a little bit of my understanding of Harney County's agriculture.

Since I operate a cattle unit, I think it important that I indicate that 86 percent of the total agricultural income in Harney County comes from the sale of livestock and livestock products. Therefore, I am best qualified in this field.

My ranch is now being served electrical energy by the Harney Electric Cooperative. We have, for many years, hoped and worked sincerely in an effort to obtain electrical service to benefit all of the area. It wasn't until several years ago that this dream was realized to the many people involved.

The farms and ranches in Harney County average a total of 4,161 acres. Potentially, each rancher and farmer has lands that can be developed further, but he must receive low-cost electrical energy to accomplish objectives in his ranch-development program.

Harney County comprises 6,484,480 acres of sagebrush ranges, timbered mountains, and other croplands. It is a semiarid region, with an average annual rainfall of 9.35 inches and an average growing season of 94 days, the growing season being from April through August.

However, the growing season south of Burns proper is substantially longer and offers greater opportunities in farming. This area is now being served by the Harney Electric Cooperative. Consideration is also being given by the Rural Electrification Administration for application of additional funds to construct additional distribution and transmission lines to serve other rural people in Harney County. For this great area, a potential development can and will take place if low-cost power is available.

As an explanation to Harney County's agricultural lands I would like to say that Harney County's surface soils range from a fine, sandy loam to heavy clays with subsoils varying from fine sand and gravel to tight clay. Water requirements on crops grown on the heavier soils in the county are between 1½ to 2 acre-feet of water per year. Alfalfa, in dry years, will need more water than the amount indicated, but other crops, particularly grain, can be produced with around 18 inches of water.

Alfalfa, undoubtedly, would be one of the most important crops in the area if irrigation development takes place. This is due to the fact that operators can produce more feed per acre on alfalfa than they can on the native-hay lands.

A total of 186,280 acres is now being farmed in the county. Of this total, 130,000 acres is native meadows which are now producing approximately 1 ton of hay per acre. The 100,000 head of cattle and 25,000 head of sheep utilize most of our hay supplies in the area.

Hay is now produced on permanent wild meadows that are now irrigated from the spring floods of the various drainages, and this water is available in late March, April, and May. Little water is available after June 15. Native-hay yields may be considered low. During years of low runoff, hay production is often a near failure. except on the most favorably situated lands.

It is a common custom in this ranch country to carry over a full season's supply of hay as insurance against a year of short water supply. Therefore, the significance of pump irrigation becomes very apparent.

I feel confident that many acres of the thousands of acres of haylands now in relatively low production could be converted to alfalfa lands and produce 4 to 5 tons of hay per acre. As you can see, this would have an immediate effect on the economic stability and living standards in the county. Opportunities would then exist for expanded operations, not only in the production of livestock, but also in the feeding of livestock in to a finished product. It would allow opportunity in the production of more feed grains, which could be fed locally to our livestock and would create in my estimation more ranch employment and aid materially in economic strengthening of the county.

I would then like to emphasize that the county has one industry in which a potential expansion exists, and that is—agriculture. But, it must receive electrical energy at low-cost rates to develop this potential, as you can understand the investment cost of wells, pumps, and motors is expensive.

At present there are 68 pumps signed under contract by the Harney Electric Cooperative, Inc., which involves 1,850 horsepower. The wells range from 150 to 300 feet deep with an average lift of around 50 feet. Volume of water varies from 700 gallons per minute to 2,000. Inclusive of the horsepower is horsepower used for what we call sump pumping. Areas north and south of Malheur Lake involve many hundreds of acres of tule bed areas which are rich farming lands. Except, they need drainage. Pumping has been the answer, and low-cost power is essential. At present some 4,000 acres of land are being drained by pumping, and then planted to barley or alfalfa. With this change in productivity of good agricultural lands, the standard of living and economic stability of the people involved is greatly improved.

Agriculture at this time has many economic problems. Ranchers and farmers are consistently looking toward new means of improving their financial standing. It is my sincere feeling that lower cost electrical service would be a tremendous assistance in obtaining this objective. It would also make the agriculture of the area more flexible and versatile to the changing needs. To me this is important!

Since we have received electrical service through the Harney Electric Cooperative, Inc., it has been interesting to note that noticeable changes as far as agricultural activities are concerned. The Pacific Northwest is now receiving a great influx of people moving to the West to live. Many of these people are interested in the development of land and have the urge to farm as their background has been farming. These people have visions of the future. They realize the tremendous potential that exists in this semiarid region and it is my feeling that the Bonneville Power Aministration has a definite obligation to service and assist in the realization of these objectives.

I hope that you can realize, too, that the area that I am talking about in my estimation is probably the one last large existing area that has potentials of ground water supplies in such volumes that development is necessary. However, to accomplish this, low-cost power is essential and necessary.

There are great opportunities existing amongst the present ranches and farms for further decelopment of their own lands if they can receive power priced on a basis of economic soundness.

I sincerely hope, in conclusion, that you will keep in mind that realistic visions are necessary for the development of this great country to the potentials that are available to its people.

I sincerely hope that you will give full consideration to this dire need of the people of Harney County as they, too, have visions for the future and development of the resources that are available to them through higher standards of living and economic stability of our Nation.

Senator CHURCH. Thank you very much, Mr. Hill.

Mr. HILL. Thank you for listening.

Senator CHURCH. Your statement as well as the other prepared statements that you gentlemen have presented to the committee will be incorporated in full in the record.

(Statements referred to follow:)

PREPARED STATEMENT OF HARNEY ELECTRIC COOPERATIVE, INC., PRESENTED BY ROBERT E. COLE, MANAGER

My name is Robert E. Cole. I serve as manager of the Harney Electric Cooperative comprising 477 miles of powerlines in the northern part of Harney and Malheur Counties in Oregon. We now have 428 services with a potential of at least 643 for which the co-op has signed applications. A portion of the potential is in the extreme northern part of Humboldt County, Nev.

With the committee's approval we would like to present our testimony in two parts. Mr. Lloyd Hill, vice president of the board of directors, will outline the general area to give you a brief picture of the area, its location and activities. I would then like to base my testimony on the co-op and its problems.

I would like to dwell briefly on the beginning of the Harney Electric Cooperative and its repeated requests to the Bonneville Power Administration for a power source.

On February 14, 1955 the co-op board passed a resolution to request BPA to provide power at Burns with an alternate plan of lease purchase or wheeling arrangement. On March 3, 1955, Dr. Pearl stated in a letter to Senator Neuberger, "We are giving this our immediate attention." Two months later Dr. Pearl answered the co-op's letter. This is certainly a record in "immediate attention."

On March 15, 1955, the announcement of the BPA-Idaho Power Co. Baker-La Grande intertie and exchange agreement was made and this contract contained no provision for wheeling of BPA power over Idaho Power lines. The lack of not having wheeling agreements in the contract is considered the most colossal mistake ever made against any REA financed co-op in our area. BPA had notice and requests for power well in advance of these contract negotiations. We realize, it is true, this would have only been a temporary relief although it would have saved the co-op thousands of dollars annually. It is a regrettable condition, but that is over and past.

Another great obstacle was thrown in the path of the co-op in the form of load estimates. This has been a continuous source of trouble. The REA set such a low average on consumer use that the co-op has never received a realistic load study until in desperation we made our own study. The fact that in our first partial year of operation our average consumer kilowatt-hour use is already past the 7th year estimate as set up by REA in their load requirement study proves how low their estimate was.

These estimates as set up by REA were extremely unrealistic and these unrealistic figures were the figures that the BPA staff insisted upon using even after we repeatedly requested they change these estimates to a more realistic estimate based on other cooperatives in areas similiar to our area. Another example of estimates being much too low is in Dr. Pearl's letter to Senator Neuberger of May 5, 1955. He stated, "Our figures show that total average annual revenues would be approximately $51,000. Our revenue last year under partial operation was $48,531.97 and we had not been in operation even 1 year. This certainly must indicate that past estimates were unrealistic. Of course, I must admit these estimated load figures were obtained from the original load estimates set up by REA, but I would also like you to keep in mind that we have repeatedly asked for a more accurate estimate load requirement.

After BPA's apparent delivery of the co-op into the hands of the Idaho Power Co., the Idaho Power Co. began submitting proposed offers, plans and rate schedules that were so complex and stifling that it was almost impossible for anyone to understand these documents, and I will not attempt to describe them at this time. These proposed offers were naturally rejected. I would like to mention that under these Idaho Power proposals, power would cost as high as 11.75 mills, and the fact remains that Idaho Power Co. has been selling power to other consumers in the area at the rate of 6 mills per kilowatt-hour.

On June 24, 1955, BPA wrote to the co-op concerning plans for partial construction by BPA of the Redmond-Burns transmission line. Mr. Callard stated they might be able to build 30 miles from Redmond. I would like to point out this evidently was based on 1,500 kilowatts initially, 2,500 kilowatts in 3 years and 5,000 kilowatts in 10 years, and a minimum demand would require an average annual use of 9,473 kilowatts for a 10 year-period. I would like you to keep this in mind as I will show our load requirements a little later.

What eventually happened with the negotiations between BPA and Idaho Power Co. is that the Idaho Power Co. came up with a proposal which was barely acceptable to the co-op, so that in description and frustration the board has committed themselves to a bare operating margin. The following is our monthly charge:

Demand charge: $1.80 per kilowatt of demand.

Energy charge: 4 mills per kilowatt-hour for the first 300 kilowatt-hours per kilowatt demand; 3.75 mills per kilowatt-hour for all additional kilowatt-hours.

Minimum charge: The minimum charge shall be the highest of the following:

(*a*) The demand charge for the current month's maximum demand, but not less than $180.

(*b*) An amount sufficient to make the total charge for service for the 12-month period ended with the current month equal to 9.5 times the maximum demand charge previously billed for any month during which service has been supplied to the customer.

I do not wish to take up your time in explaining this last item but it could prove to be a very expensive item particularly in regard to our irrigation program.

Last year's average power cost to us was 9.4 mills per kilowatt-hour including charges of wheeling by California-Pacific Utilities Co. When you compare this with BPA power costs of 3 mills it is very easy to see the savings that the co-op would realize.

At this point I would like to describe this power source that the co-op had to settle for. This line is rated a 69-kilovolt line with No. 1 copper conductor (I would guess) built on a single-pole structure with a minimum type of insulation.

This 69-kilovolts originates in Ontario then it runs to Van and back to Burns. This is approximately 150 miles. Hardly an ideal situation for a 69-kilovolt line. This line also serves the entire area. This all adds up to a very inadequate power supply. To illustrate, we have regulators in our substation that have operated 18,000 operations in the last 10 months.

We have a contract with IPC at this time for a limit of 2,000 kilowatts. We will pass this limit quite possibly in 1959 and definitely in 1960. Our present load requirements approach an initial load of 10,000 kilowatts. But I will explain that later.

Before I go any further, I would like to have this point clear, we are not asking to have this line donated to the Harney Electric Cooperative, we are only asking for a fair deal. We wish to have our load studied on its own merits. I do not want to dwell on past history but on present and future load requirements and power problems of the cooperative.

On December 17, 1957, members of our board, Mr. Robert Welty, our engineer, myself, and other interested parties met with Dr. Pearl and his staff to see if we could iron out some of the difficulties which had arisen in the past. We met with the BPA staff in good faith, and we were under the assumption that they were of the same opinion. The outcome of this meeting was that we would furnish a new load requirement study of what we felt was the load in our service area, and they in turn would attempt to once again negotiate for a wheeling agreement with the IPC for the general purpose of temporary relief for the co-op until a proper line could be built from Redmond to Burns. At this meeting we discussed the procedure and areas this load study was to cover. We agreed to prepare and submit this study under the standard form as set up by BPA. And BPA was very helpful in helping to organize this study. The area was to cover all the area that the co-op though would be feasible for them to serve. This I consider a very important item as the area included a very small portion of Humboldt County, Nev. This area was discussed at this December meeting and it was decided the areas should be shown separately by substations on the study, which it was. The question was also brought out as to what effect this Nevada load would have on BPA. To this, Dr. Pearl answered with his own idea on the subject. (I will not attempt to quote him verbatim, but I did contact all the other persons present with the exception of the BPA staff, and they are of the same opinion as I.) He did not see what difference the Nevada load would make as long as the delivery point was to the Harney Electric Co-op in the Burns area.

After this meeting we proceeded immediately with our load-requirement study. We went to the expense of membership signup and general preliminary work which is required in this type of a study for a new area.

On February 20, 1958, we submitted our load-requirement study to BPA. We felt we submitted a very honest and realistic study without exaggeration in any form. I still believe this. I would again like to emphasize the day the study was submitted to BPA—February 20.

On March 18, 1958, at 9:30 a. m. in a telephone conversation with Dr. Pearl, he told me "BPA could not furnish electrical energy for the Nevada load." Now please remember this was 26 days after the load requirement study had been mailed to BPA. In the conversation Dr. Pearl also stated BPA would call us again not later than March 24. This they did at 2 p. m. on March 18, the same day. I received a call from Mr. R. J. Tallman, district manager of BPA's Walla Walla office, and in this conversation Mr. Tallman repeated Dr. Pearl's statement of early in the day almost word for word. It is our firm opinion that BPA reviewed our load study, and in another reversal, rejected this Nevada load because without every single kilowatt we could obtain we could not prove feasibility under their feasibility study methods. This is the apparent reason why BPA has refused to deliver electrical energy to Harney Electric Co-op for the Nevada load.

In BPA's correspondence on May 5, 1955, with the Oregon Senators, they indicated the minimum average load for a 10-year period should be 9,473 kilowatts. In our load requirement study of February 20, 1958, we indicated an initial load of 8,165 kilowatts, 5th year load of 13,785 kilowatts and a 10th year load of 18,390 kilowatts. From all indications this line would prove feasible even with the increased price of construction. If my accusation that BPA is eliminating the Nevada area to block feasibility is not proper, then I ask why did BPA wait 26 days after the study was submitted before notifying the Harney Electric Cooperative? We had gone to the expense of preparing the study in good faith and under conditions as set up in our December 17 meeting with the BPA staff only to have them change their minds after we submitted the load study.

On March 19, I received a letter from Mr. Tallman requesting additional information, but the letter failed to mention the rejection of the Nevada load, so on March 25, I sent a telegram to Mr. Tallman which read as follows:

"Refer letter March 19, 1958, item 4: Furnish definite reason for breakdown of Oregon and Nevada substation loads. Board will require definite reason for this additional engineering expenditure. Board requests immediate reply by wire."

To this I received the following wire on March 27:

"Breakdown of estimated substation loads for proposed Fields and McDermitt substation desired in order that feasibility studies can be made based on estimated revenue from portion of load expected to be located in Oregon."

To me this wire only contained words, so on March 27, I sent the following wire:

"We interpret your wire—BPA will not furnish Harney Electric power to serve rural areas in Humbolt County, Nev. Is this correct? Wire answer. Urgent. REA here today making power requirement study."

And to this I received the following answer:

"We have been advised administration is not in position to furnish energy to meet loads in Nevada which is outside of BPA marketing area."

This was the confirmation I was seeking. Now, the question is why cannot BPA sell power to the Harney Electric Cooperative for consumers they consider to be in their area? We are not asking BPA to serve the area, we are only requesting an initial load of 8,165 kilowatts to be delivered to Harney Electric Cooperative in the Burns area.

Mr. Tallman's letter of March 19 also carried other obstacles for the cooperative to overcome. I would like to briefly review these requirements which are as follows:

1. Data on any recent ground water surveys for the areas in which major irrigation loads are expected.

BPA is far more capable of securing recent ground water surveys for these areas than the Harney Electric Cooperative. The reason I indicate this is they are able to see data that has not been published or released and we are only able to obtain information that is old and obsolets. This item could also mean the BPA staff wants us to make our own ground water survey. If this is their intent, I might say it is out of the question as we are not in a position to make the necessary expenditure, nor do we feel we should take the long period of time this would require.

2. Additional data regarding future land subdivision, to justify the large increase in farm accounts over those presently in the area.

This could be anybody's guess. If a field representative does not want to believe in the area or its inhabitants, it is very possible to give a very poor report, while this could be reversed if the representative looked over the area from a realistic point of view.

3. Information on actual "membership signup" to verify the potential consumer counts as listed on Mr. Welty's "Customer tabulation" sheets.

We realized, of course, this would have to be completed, and this was done immediately.

4. A breakdown of the substation loads for the proposed Fields and McDermitt substations, to indicate the portion of the load in Oregon and the portion in Nevada.

We do not see justification for this as long as we buy at one point in Oregon and do not resell wholesale. Both item 2 and item 4 are included in the load requirement study that was submitted to BPA. If the BPA staff would review this study, they would find the necessary answers.

The type of demands the BPA staff is making upon our cooperative is setting a completely new set of standards and requirements from those previously set up by BPA. I have checked with other cooperatives in the area, and they have informed me we are being required to furnish much more complicated data than was required of them.

The Harney Electric Cooperative is probably the last cooperative in the Northwest who will be requesting a BPA source, and it is certainly the only area in the Northwest not receiving BPA power. The Harney Electric Cooperative also is the newest (not yet 1 year in operation) yet the BPA is already limiting us to a service area by their apparent outright refusal to furnish energy to serve what we feel is our service area. I admit the Nevada area is probably out of the BPA service area, but we are not asking them to serve the area, we are only asking for a delivery point in the Burns area which is in the BPA service area. We contend BPA should give us a delivery point in the Burns area. Does BPA refuse to deliver energy to Copco because they in turn resell power into California and out of the Columbia River drainage basin? The answer is "No." Copco purchased 14,098,205 kilowatt-hours from BPA last year. Does BPA refuse to deliver energy to the Montana Power Co. because they resell power into eastern Montana which is out of the BPA market area? Again the answer is "No." Montana Power purchased 352,634,000 kilowatt-hours last year. Another example, does the BPA sell energy for use out of these United States? The answer is "Yes." British Columbia Electric Co. purchased 111,972,814 kilowatt-hours last year. This is not to mention the Idaho Power Co. purchased 8 percent of their power from BPA, 94,995,000 kilowatt-hours or that Utah Power & Light Co. purchased 13 percent of their power from BPA.

It looks to me as if the BPA is drawing a very thin line when they tell the Harney Electric Cooperative they cannot furnish energy for a line that will penetrate Nevada by approximately 45 miles. The people of Nevada are being discriminated against because of boundary lines set up on a piece of paper and because of drainage areas. It is probably true, the Nevada area we speak of is not in the Columbia drainage area, but neither is it in the drainage area of any other river. The area we speak of has no drainage, and because of this they are outcasts. It is quite discouraging to see here in these modern times people discriminated against for want of some river or ocean to dump their streams into.

These United States began because of taxes, and now we have here people paying taxes to the United States, but the United States discriminating against these same taxpayers by refusing to sell them one little commodity, electric energy generated by the United States.

This Nevada area has no opportunity of obtaining central station power from any other source. They do not have power now, except for their individual plants, and this is the only logical way to serve these people. If you could only see the area and talk to the people I am sure you would be as convinced as I am that this power source is a must for these people.

Under the severe standards that BPA has set for the Harney Electric Cooperative, we need every single kilowatt we can possibly obtain to prove that a transmission line into the Burns area would be feasible. We further feel this area in question is in the Harney Electric Cooperative service area. It is my firm opinion, but I hope I am mistaken, the BPA staff is making every effort possible to stall and put off building a transmission line into the Burns area. This refusal to deliver energy for the small Nevada area is another move on their part to stall on a power source for the Harney Electric Cooperative. I assume the BPA feels if we do not have this Nevada area in our load requirement, we will not be able to show a 100 percent payout on their feasibility study; therefore, they cannot build the necessary transmission line.

I have reviewed the BPA Act and I cannot find anything in the act that stipulates where a cooperative in our position cannot have consumers out of the BPA market area.

I believe the governing bodies should know what the BPA is doing, apparently refusing to fulfill, or permit to fulfill, one of the moral obligations set up by the United States Government, through the Government agencies—REA and BPA—which is area coverage to all the people.

When the Harney Electric Cooperative was organized, the board of directors assumed the responsibility for the area coverage principal to assist in bringing electric service to all rural people in America. They were willing to assist the United States Government, through the Government agencies—REA and BPA—to accomplish this big task.

We are making every effort possible to carry out the area coverage principles in our area and to assist the United States Government.

I feel this would fit into President Eisenhower's policy urging REA borrowers to expedite the start of necessary construction and to place orders with manufacturers for needed materials and equipment to stimulate needed productive employment in a manner that will benefit local communities and the Nation.

And in conclusion, I would like again to point out we are not asking that this line be donated to the co-op, we only ask that the co-op's load be given what we consider an honest view without any stalling and evasive action. We would recommend the following points to be taken into consideration:

1. The cost comparison between the Idaho Power rate and the BPA rate. This would mean a great savings to the cooperative.
2. That our load requirement study be used as a basis for the study.
3. That by all means, the Nevada load be included in the study.
4. That the construction budget for the Bonneville Power Administration be increased in the amount of not less than $50,000.
5. The cooperative urgently desires completion before December 31, 1961, when its present power contract expires, and if possible, this line be completed at an earlier date.

I would like to point out three methods of arriving at a solution to this problem if the feasibility study should prove the line is not feasible:

1. That the Administrator enter into a lease-purchase arrangement, as our engineer feels the co-op could build the line at a cost of about one-third less than the BPA has set up.

2. That the Administrator enter into a joint or shared construction cost with the cooperative as would be suitable to both parties, but this method be used only after the other methods fail.

3. As a last resort, BPA make suitable arrangements with the Idaho Power Co. for wheeling power over their lines. This be used only as a last resort as it would mean only a temporary relief as the power source is very inadequate.

And in closing I wish to state, the Harney Electric Cooperative has made application to REA for funds to build all the lines that were included in the load study submitted to BPA, and we will need an adequate power source before these lines can be constructed.

We wish to thank you for this time you have given us and we sincerely hope a solution to this problem can be worked out.

HARNEY ELECTRIC COOPERATIVE, INC.,
Burns, Oreg., April 3, 1958.

Senator RICHARD L. NEUBERGER,
Senate Office Building, Washington, D. C.

DEAR SENATOR: The enclosed correspondence will bring you up to date on the situation of the Harney Electric Cooperative and our attempt to obtain a power source with the Bonneville Power Administration.

We are of the opinion the BPA is deliberately stalling in an attempt to avoid constructing a line into our area.

To support our opinion I will review information requested in the March 19, 1958, correspondence:

Item 1: BPA is far more capable of securing recent ground water surveys for these areas than the Harney Electric Cooperative. The reason I indicate this is they are able to see data that has not been published or released and we are only able to obtain information that is old and obsolete.

This item could also mean the BPA staff wants us to make our own ground water survey. If this is their intent, I might say it is out of the question as we are not in a position to make the necessary expenditure nor do we feel we should take the long period of time this would require.

Item 2: This could be anybody's guess. If a field representative does not want to believe in the area of its inhabitants it is very possible to give a very poor report, while this could be reversed if the representative looked over the area from a realistic point of view. I am enclosing a letter from the county agent. This will answer this item.

Item 3: We realized, of course, this would have to be completed, but we have held back the actual signup because we did not want to have this added expense if the line would not prove feasible. This signup is now almost completed as we feel the lines do prove feasible.

Item 4: We do not see justification for this as long as we buy at one point in Oregon and do not resell wholesale. This was discussed with Dr. Pearl and his staff in our December meeting. Dr. Pearl at that time stated verbally he did not see what difference it would make as long as the delivery point was in BPA service area.

Both item 2 and item 4 are included in the load requirement study that was submitted to BPA. If the BPA staff would review this study they would find the necessary answers.

The enclosed telegrams indicate the exact meaning of item 4. The first telegram, you may note, indicated to us the BPA staff did not try to answer our direct question so we sent the second telegram to see if our interpretation was correct. We have been continuously plagued with this type of evasive answer.

The type of demands the BPA staff is making upon our cooperative is setting a complete new set of standards and requirements from those previously set up by BPA. I have checked with other cooperatives in the area and they have informed me we are being required to furnish much more complicated data than they were required to.

The Harney Electric Cooperative is probably the last cooperative in the Northwest who will be requesting a BPA source. The Harney Electric Cooperative also is the newest (not yet 1 year in operation), yet the BPA is already limiting us to a service area by their apparent outright rejection of furnishing energy to serve what we feel is our service area. I admit the Nevada area is probably

out of BPA service area but we are not asking them to serve the area; we are only asking for a delivery point in the Burns area. Does the BPA refuse to deliver energy to Copco because they in turn resell power into California and out of the Columbia River drainage basin? The answer is "No." Does BPA refuse to deliver energy to the Montana Power Co. because they resell power into eastern Montana which is out of the BPA market area? Again the answer is "No." Another example, does the BPA sell energy for use out of these United States? The answer is "Yes." It looks to me as if the BPA is drawing a very thin line when they tell the Harney Electric Cooperative they cannot furnish energy for a line that will penetrate Nevada by approximately 45 miles. The people of Nevada are being discriminated against because of boundary lines set up on a piece of paper and because of drainage areas. It is probably true, the Nevada area we speak of is not in the Columbia drainage area, but neither is it in the drainage area of any other river. The area we speak of has no drainage and because of this they are outcasts. It is quite discouraging to see here in these modern times people discriminated against for want of some river or ocean to dump their streams into.

These United States began because of taxes and now we have here people paying taxes to the United States but the United States discriminating against these same taxpayers by refusing to sell them one little item, electric energy generated by the United States.

This Nevada area has no opportunity of obtaining central station power from any other source. They do not have power now, except for their individual plants, and this is the only logical way to serve these people. If you could only see the area and talk to the people I am sure you would be convinced as I am that this power source is a must for these people.

Under the severe standards that BPA has set for the Harney Electric Cooperative we need every single kilowatt we can possibly obtain to prove that a transmission line into the Burns area would be feasible. We further feel this area in question is in the Harney Electric Cooperative service area. It is my firm opinion, but I hope I am mistaken, the BPA staff is making every effort possible to stall and put off building a transmission line into the Burns area. This refusal to deliver energy for the small Nevada area is another move on their part to stall on a power source for the Harney Electric Cooperative. I assume the BPA feels if we do not have this Nevada area in our load requirement we will not be able to show a 100-percent payout on their feasibility study therefore they cannot build the necessary transmission line.

I have reviewed the BPA Act and I cannot find anything in the act that stipulates where a cooperative in our position cannot have consumers out of the BPA market area.

I wish to have your advice as to whether we should request Congress to look into the BPA situation to determine some of the answers to our power requests. I am asking for this advice because I believe the governing bodies should know what the BPA is doing, apparently refusing to fulfill, or permit to fulfill, one of the moral obligations set up by the United States Government in their BPA Act of 1937 and REA Act of 1935, which is area coverage to all the people.

When the Harney Electric Cooperative was organized, the board of directors assumed the responsibility for the area coverage principal to assist in bringing electric service to all rural people in America. They were willing to assist the United States Government, through the Government agencies—REA and BPA to accomplish this big task.

We are making every effort possible to carry out the area coverage principles in our area and to assist the United States Government.

I feel this would fit into President Eisenhower's policy urging REA borrowers to expedite the start of necessary construction and to place orders with manufacturers for needed materials and equipment to stimulate needed productive employment in a manner that will benefit local communities and the Nation.

We would appreciate any help or advice you could give us to assist the Harney Electric Cooperative obtain a Bonneville Power Administration power source.

Very truly yours,

ROBERT E. COLE, *Manager.*

DEPARTMENT OF THE INTERIOR,
BONNEVILLE POWER ADMINISTRATION,
WALLA WALLA DISTRICT OFFICE,
Walla Walla, Wash., March 19, 1958.

Mr. ROBERT E. COLE,
Manager, Harney Electric Cooperative,
Burns, Oreg.

DEAR MR. COLE: We are in receipt of a copy of Mr. Welty's letter dated February 20, 1958, transmitting your preliminary load estimate to Dr. Pearl. We will need additional information from you before our review of the load estimate and the preparation of feasibility studies can be completed. The additional information desired is as follows:

1. Data on any recent ground water surveys for the areas in which major irrigation loads are expected.
2. Additional data regarding future land subdivision, to justify the large increase in farm accounts over those presently in the area.
3. Information on actual membership signup to verify the potential customer counts as listed on Mr. Welty's customer tabulation sheets.
4. A breakdown of the substation loads for the proposed Fields and McDermitt substations, to indicate the portion of the load in Oregon and the portion in Nevada.

Sincerely yours,

ROBERT J. TALLMAN, *Manager.*

[Telegram]

MARCH 25, 1958.

ROBERT J. TALLMAN,
District Manager, Bonneville Power Administration,
Walla Walla, Wash.:

Refer letter March 19, 1958, item 4: Furnish definite reason for breakdown of Oregon and Nevada substation loads. Board will require definite reason for this additional engineering expenditure. Board requests immediate reply by wire.

ROBERT E. COLE, *Manager.*

[Answer]

MARCH 27, 1958.

ROBERT E. COLE,
Manager, Harney Electric Cooperative, Inc.,
Burns, Oreg.:

Breakdown of estimated substation loads for proposed Fields and McDermitt substation desired in order that feasibility studies can be made based on estimated revenue from portion of load expected to be located in Oregon.

ROBERT J. TALLMAN.

MARCH 27, 1958.

ROBERT J. TALLMAN,
District Manager, Bonneville Power Administration,
Walla Walla, Wash.:

We interpret your wire, BPA will not furnish Harney Electric power to serve rural areas in Humboldt County, Nev. Is this correct? Wire answer. Urgent. REA here today making power requirements study.

ROBERT E. COLE.

MARCH 27, 1958.

ROBERT E. COLE,
Manager, Harney Electric Cooperative, Inc.,
Burns, Oreg.:

We have been advised Administration is not in position to furnish energy to meet loads in Nevada which is outside of BPA marketing area.

ROBERT J. TALLMAN.

HARNEY ELECTRIC COOPERATIVE, INC.,
Burns, Oreg., March 27, 1958.

Mr. R. J. TALLMAN,
District Manager, Bonneville Power Administration,
Walla Walla, Wash.

DEAR SIR: In reply to your letter of March 19, 1958, requesting additional information as to the Harney Electric Cooperative load study, we are now in the process of actually making the membership signup. This was started March 8, 1958.

We have never attempted this sooner as the area would require an adequate power source, which would mean BPA. This was discussed in our meeting with the BPA staff at our December meeting in Portland.

The board of directors request to know why the feasibility study could not be completed with the information as it has been submitted? In their opinion the information you requested does not have any bearing on the cost analysis. At the time we submitted our preliminary load study to the BPA we realized some of this additional information would be a requirement for the final study, but did not realize you would request this data before you made your cost analysis. It is the opinion of the board members who were present at the December meeting that the study we submitted would be used for cost purposes to determine if the line would prove feasible.

As the BPA staff must realize, time is of the essence to us, and we will be happy to assist in any way possible to secure additional information and to help expedite this study at the earliest possible date.

Very truly yours,

ROBERT E. COLE, *Manager.*

Senator CHURCH. Senator Neuberger, do you have some questions you would like to put to these gentlemen?

Senator NEUBERGER. Yes, Mr. Chairman; I do have some questions. I want to develop with Mr. Hill and Mr. Wooden and Mr. Cole as briefly as possible the precise circumstances governing the inability of Harney Electric Cooperative to secure a supply of energy from Bonneville Power Administration.

Mr. Cole, you spelled that out in some detail in your statement. I wonder if in about 2 or 3 minutes you could just review why you were denied a supply of power, why you and your colleagues feel that the denials were not fair and were not based on proper reasons.

Mr. COLE. Yes, Senator Neuberger, I believe I can.

On December 17, 1957, we met with the Bonneville staff to see if we could not iron out some of the problems that had arisen and one of the problems was that we wanted to increase a new load into the area.

According to the Bonneville staff, our feasibility was not right because we did not have the load to warrant the line being brought into the area just on Harney alone.

Senator NEUBERGER. Their principal reason, in other words, was the alleged inadequacy of your load; is that correct?

Mr. COLE. Yes. It was not taking into consideration any of the Cal-Pacific load or the Heinz load which are there. They should be considered potential even though there was not anything under contract and naturally they were not going to commit themselves.

Senator NEUBERGER. Then you did make a feasibility study; is that correct?

Mr. COLE. That is right, at our own expense we made the study because Bonneville felt that they could not justify putting out the expenditure.

Senator NEUBERGER. How long a line would Bonneville have had to build to serve your co-op?

Mr. COLE. I believe their figures were 126 miles.

Senator NEUBERGER. I want to say that I think all your statements are excellent and very effective statements.

On page 6 of your statement, you outline and summarize your feasibility studies; is that not correct?

Mr. COLE. That is correct.

Senator NEUBERGER. I want to review some of the basic facts in this. Evidently Bonneville told you that they felt that your minimum average load for a 10-year period should be 9,473 kilowatts.

Mr. COLE. That was as of 1955.

Senator NEUBERGER. Now, in your load requirement study that you made in February of this year, you say you indicated an additional load of 8,100 kilowatts and an eventual 10-year load of some 18,000 kilowatts; is that correct?

Mr. COLE. That is correct.

Senator NEUBERGER. Did Bonneville challenge that study?

Mr. COLE. They did; yes.

Senator NEUBERGER. On what basis?

Mr. COLE. Incidentally, this load included some Nevada load.

Senator NEUBERGER. I understand that.

Mr. COLE. It was on the basis that they could not accept the Nevada load because, as the last telegram I received from them said:

> We have been advised the Administration is not in position to furnish energy to meet loads in Nevada which is outside the BPA market area.

Senator NEUBERGER. What proportion of your feasibility study load stemmed from Nevada customers?

Mr. COLE. The total could approach the 40-percent mark.

Senator NEUBERGER. In other words, approximately 40 percent of the load which was indicated by your study came from these Nevada customers?

Mr. COLE. Yes.

Senator NEUBERGER. Is that the meat of the coconut with respect to Bonneville's rejection of your application for service, the Nevada customers, in other words?

Mr. COLE. That is my interpretation of it.

Senator NEUBERGER. That is your interpretation of your correspondence with them and of your verbal discussion with them?

Mr. COLE. Yes.

Senator NEUBERGER. Was there any other basis for their rejection except the Nevada customers who are allegedly outside of the Bonneville marketing area?

Mr. COLE. When they rejected the Nevada area it brings it back to the point that evidently they do not consider the line feasible again because we are not proving out 100 percent feasibility.

Senator NEUBERGER. Because 40 percent of the potential load was in Nevada?

Mr. COLE. Yes.

Senator NEUBERGER. Did you bring to the attention of the Bonneville authorities the fact that they are serving other customers a substantial distance away from the source of Bonneville's energy?

Mr. COLE. No; we never brought that up in direct correspondence. The last time I mentioned it to one of the Bonneville personnel was in Spokane. It was the Northwest Public Power Association's annual

meeting. It was indicated there that COPCO delivered more power to Bonneville than they sold which is not in accord with the 1957 Bonneville report.

Mr. MAPES. I think the question involved here is definition of the Bonneville service area. Have you received such a definition from the Bonneville Power Administration?

Mr. COLE. The only thing we have ever received as far as interpretation on Bonneville's part has been this last telegram which said, "Advise Administration not in position to furnish energy for load in Nevada." No explanation, nothing.

Mr. MAPES. I notice that, in your letter to Senator Neuberger, I believe you did state that at one point Dr. Pearl indicated that if the delivery point was inside the service area there would be no difficulty with this.

Mr. COLE. That was my interpretation. I asked other members except the Bonneville Power staff what their interpretation of that statement was and they were all in accord with me.

Senator NEUBERGER. Mr. Mapes, I would like to ask you a question for the record. You have worked with this closely as a member of the Interior Committee staff. I believe you were formerly on the staff of the Bonneville Power Administration.

How is the Bonneville marketing area decided? Is it decided on geographic distance from Federal power in the Columbia River system? Is it decided on a geographic point within or outside the Columbia River Basin itself, meaning that the drainage flows ultimately into the Columbia? What is the source for determining it?

Mr. MAPES. There is no legislative determination of that area as I understand the Bonneville Act. I believe it is normally done by executive order. I believe Dr. Pearl could answer it.

Senator CHURCH. Dr. Pearl and other representatives of the Bonneville Power Administration are present here. They might like to answer that question.

STATEMENTS OF WILLIAM A. PEARL, ADMINISTRATOR; J. LANE MORTHLAND, ASSISTANT ADMINISTRATOR; AND C. E. MOHLER, ENGINEER, BONNEVILLE POWER ADMINISTRATION, PORTLAND, OREG.—Resumed

Mr. PEARL. I would like to ask Mr. Morthland to come up as I have to catch a plane and may not have a chance to answer all the questions.

The Bonneville marketing area is determined by the Secretary of the Interior. It is designated as Oregon, Washington, Montana, west of the Continental Divide, and northern Idaho. Southern Idaho is designated as the marketing area for the Bureau of Reclamation.

Mr. MORTHLAND. I might add to that that I do not believe, unless Mr. Mapes is familiar with some records that I am not familiar with, that the area as such has ever been precisely defined in any document. There was a joint memorandum back in 1948 issued by Mr. Krug in which there was some mention made of geographical areas in which Bonneville Power should market its power and in which areas the Bureau of Reclamation in the region should market its power.

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I believe there is another general statement a little later, signed by Secretary Chapman, which defines the eastern boundary of the Bonneville area as the Continental Divide in Montana. Other than that we have never been able to find any precise definition.

It is just a matter that has been recognized as comprising that area.

Senator NEUBERGER. Let me ask you this, Mr. Morthland. Inasmuch as you say yourself you have not been able to find any precise definition, why, then, did you decline service to the Harney Electric Cooperative because of their potential Nevada customers?

Mr. MORTHLAND. Because, Senator Neuberger, it was the policy of the Department of the Interior not to sell or contract to sell firm power which will be delivered for use outside of what is considered to be the geographical marketing area of Bonneville.

Senator NEUBERGER. But you yourself have said that you did not find any precise definition. I think that was your selection of words.

Mr. MORTHLAND. No precise definition in any document.

Senator NEUBERGER. In other words, then, there was no hard and fast criterion. You can expand or contract the marketing area as you see fit because, if you say there is no precise definition, by what criterion did you decide that this was outside the marketing area?

Mr. MORTHLAND. Because, Senator Neuberger, it is outside the geographical limits of the State of Oregon and, as I said, the market policy was established prior to my time in Bonneville that we would not serve outside of the geographical area of the State of Oregon, the State of Washington, northern Idaho and Montana west of the Continental Divide. We are not prohibited from serving outside. It is purely a matter of policy that was developed, I think, many years ago.

We are prohibited by law, of course, from delivering firm power to Canada.

Senator NEUBERGER. The energy that goes to British Columbia by exchange with British Columbia Electric is merely so-called dump power, interruptible power.

Mr. MORTHLAND. Dump power on an if, as, and when basis, yes, sir.

Senator NEUBERGER. I want to get back to the criterion by which service was denied to Harney Electric Cooperative.

Again you realize there was nothing in law that kept you from doing it, is that not correct?

Mr. MORTHLAND. I think that is correct as far as legislation is concerned.

Senator NEUBERGER. There was no definite order from the Secretary that kept you from doing it, was there, because you, yourself, have said there was no precise definition of the marketing area.

Mr. MORTHLAND. I would have to answer that in this way, Senator Neuberger: After the Harney County people conferred with us in December last year and mentioned the possibility of their picking up this small additional northern Nevada load, we advised them, Dr. Pearl advised them in that meeting that we did not know whether we could serve that load at that time or not but we would find out.

We subsequently discussed the matter with Secretary Aandahl and he reiterated the policy to us that we should not serve, we should not contract to sell firm power that we knew was going to be delivered out of the State of Oregon in that direction. Following that ad-

vice from the Secretariat, we advised the Harney County people that we could not serve that load.

I might say, however, Senator Neuberger, that we have studied their load potential, their 10-year load potential, both on the basis of serving the Nevada load and on the basis of serving only the Oregon load. We can supply those figures for the record if you so desire.

Senator NEUBERGER. Is it your opinion that the customers potentially in Oregon are inadequate to justify your providing service?

Mr. MORTHLAND. On the basis of the load potential figures that the Harney County people have furnished us, over a 10-year period if we were to give them the power for free they would still show a deficiency of $851,149 over the 10-year period.

Senator NEUBERGER. If they added the load in Nevada, just forgetting the geography of it for a minute, how would the feasibility from the financial standpoint then be?

Mr. MORTHLAND. Again, on the basis of their figures, if we gave them the power for 10 years at no charge, simply charge them the cost of operating and maintaining the line, the deficit including the Nevada load would be $452,672.

Senator NEUBERGER. I just want to ask a question based on Mr. Cole's testimony to us on page 6.

I would just like to read you these two sentences:

In BPA's correspondence on May 5, 1955, with the Oregon Senators—

meaning Senator Morse and myself—

they indicated the minimum average load for a 10-year period should be 9,473 kilowatts. In our load requirement study of February 20, 1958, we indicated an initial load of 8,165 kilowatts, 5th-year load of 13,785 kilowatts, and a 10th-year load of 18,390 kilowatts.

How do you account for the conflict in the figures between what you have just told us and Mr. Cole's testimony there?

Mr. MORTHLAND. Senator Neuberger, I am not familiar with the negotiations that went on between Bonneville Power Administration and the Harney people in 1955. I was not then connected with the Bonneville Power Administration.

I am advised, however, that those load figures at that time had been made for the Harney people by the REA and they were submitted to Bonneville; and, on the basis of cost of construction at that time, I think that this figure was indicated as the minimum average 10-year load which was required.

I think that the figures that he gives for 1958 studies are correct. However, we have reassessed the cost of construction of this line. As a matter of fact, last week I instructed our Engineering Division to reexamine the construction cost of the necessary transmission facilities with the idea of building a line which would carry the power that these people need at the most economical cost possible with no frills or anything else on it.

Just yesterday I received from Portland this information I have just given in answer to the question.

I might say that the capital outlay required for the line using a 3–0 conductor, 115-kilovolt line which is necessary, is $2,379,200 plus $175,000 substantial addition at Redmond to increase the voltage from 69 kilovolts to 115.

Mr. MAPES. What is your present evaluation of the necessary annual load over the 10-year period?

Mr. MORTHLAND. I cannot give you the figure that way, Mr. Mapes, at this time. I can get it for you.

Senator NEUBERGER. Of course, that is quite important because that would tell us what you regard as necessary to amortize this line.

Mr. MORTHLAND. In terms of load, that is correct. I will get that figure and supply it for the record, Senator Neuberger.

(The following information was subsequently submitted:)

BONNEVILLE POWER ADMINISTRATION

Incorporated herein are the results of the latest study made by the Bonneville Power Administration on the feasibility of constructing transmission facilities to supply the Harney Electric Cooperative, Inc., loads in southeastern Oregon with power from the Federal Columbia River power system. These studies are made upon the basis of load growth potential supplied by the cooperative's engineer on February 15, 1958.

On May 9 the Bonneville Power Administration engineering division estimated that the cost of constructing 123 miles of 115-kilovolt line using a 3/0 conductor between Redmond Oreg., and Burns, Oreg., would be $2,153,000. In the event northern Nevada loads are to be served by the cooperative, a larger conductor will be necessary and the cost in that case would be $2,379,200. In addition to the transmission line, terminal facilities would have to be added to the present BPA Redmond substation to increase voltages from 69 kilovolts to 115 kilovolts at a cost of $175,000.

A summary of the feasibility studies showing loads, income, and annual costs over a 10-year period, both including the Nevada load and excluding the Nevada load follows:

Total including Nevada

	Load in megawatt-hours	At 3.5 mills per kilowatt-hour	Annual costs
1961	21,992.3	$76,973	$164,400
1962	25,826.6	90,393	164,400
1963	28,203.1	98,711	164,400
1964	30,579.5	107,028	164,400
1965	32,955.9	115,346	164,400
1966	35,358.7	123,755	164,400
1967	37,761.5	132,165	164,400
1968	40,164.4	140,575	164,400
1969	42,567.3	148,986	164,400
1970	44,970.2	157,396	164,400
Total	340,379.5	1,191,328	1,644,000

Exclusive of Nevada

	Load in megawatt-hours	At 3.5 mills per kilowatt-hour	Annual costs
1961	12,445.1	$43,598	$150,380
1962	14,268.8	49,941	150,380
1963	15,517.4	54,311	150,380
1964	16,766.1	58,681	150,380
1965	18,014.8	63,052	150,380
1966	19,307.1	67,575	150,380
1967	20,599.5	72,096	150,380
1968	21,891.9	76,622	150,380
1969	23,184.3	81,145	150,380
1970	24,476.7	85,668	150,380
Total	186,471.7	652,651	1,503,800

I might explain, if you are interested, what our standard feasibility requirements are.

In building lines and associated facilities to serve a new customer, we require that their load potential over a 10-year period be sufficient to return revenues to the Bonneville Power Administration which will pay the cost of amortizing the line, interest on the investment, and the operation and maintenance charges during that 10-year period. If we break even on that basis then we feel justified in going to the Congress and asking for an appropriation to construct the facility. If the studies indicate that it would be less than even, particularly substantially less, we have not felt justified in asking for an appropriation to continue the facility.

Senator NEUBERGER. Do all your lines satisfy those criteria?

Mr. MORTHLAND. Yes, sir, that is standard criteria.

Senator NEUBERGER. You have none in operation or construction that are below that standard?

Mr. MORTHLAND. We had none since Dr. Pearl has been Administrator of Bonneville. I cannot answer that as to some lines that may have been constructed in the past, sir, but I think it is possible that we have some on lower standards constructed many years ago, in the early stages.

Mr. MAPES. Do you say they were substandard when they were constructed or still would be?

Mr. MORTHLAND. I do not know, Mr. Mapes.

Mr. MAPES. I think perhaps that one of the things in issue here is whether or not the future load growth in the area offers the potential to justify the line on a long-term basis, although it may not be justifiable immediately.

One thing I wanted to ask you about is whether, in your estimates of the load growth in the area, Bonneville Power has taken into account the full potential growth in the area. For instance, I think we all know that the Cal-Pac situation there in Burns is not a very strong one. That is to say they are only served by that rather straggly line of the Idaho Power Co. from Vale. They have no connection with any other system.

What about the possibility of Cal-Pac's providing a growth during the next 10 years of that load and being very willing to take Bonneville power if it was made available at Burns?

Mr. MORTHLAND. Well, Mr. Mapes, it is a possibility but it is pure speculation, of course.

Heinz Lumber Co. also had a load there but they have their own generation and those very possibilities, after Mr. Welty, the engineer from Harney County, furnished us the preliminary study figures earlier this year, showed that the line would not be feasible on that basis, and we wrote back to Mr. Cole and suggested that they conduct a customer signup program which might pick up those others in an effort to build this thing up so that we could serve them.

We are ready, willing, and anxious to serve this load. We just do not feel that we can ask Congress for money to build this line when we know that in the 10 years, on the basis of the figures furnished us, it will show a deficit.

Senator NEUBERGER. You say you know that. I just wonder do you know that? This is the thing that bothers me about this situation.

The Harney Electric Cooperative is by terms of load and size relatively small in this great scheme of things. I know that you, Mr. Morthland, and you, Dr. Pearl, are proud of Bonneville's record and, by Bonneville, I mean the Bonneville Power Administration. Yet, I can remember when both Bonneville and Grand Coulee were first built how many people thought that they would not pay out. I can remember when an eastern writer came out and wrote an article called Dam of Doubt and it was printed in a brochure and mailed out over the United States, and the prediction was that the power would never be sold.

I was at Grand Coulee the day the diamond drilling began and wrote an article for Harper's magazine called the Greatest Thing on Earth. There were speeches made on the floor of Congress, saying what a monstrous folly Grand Coulee was, and one Congressman from New York said there was nobody to sell this power to except sagebrush and jack rabbits and that it would be a monumental loss.

This is what worries me. Are you showing sufficient vision and even sufficient risk to take on this load in the southeast Oregon area with some faith and hope that there will be an increase in the population, in the industrial activity, in the agricultural activity, and in the load there?

I just wonder if there would be any Bonneville Power Administration and any Administrator Pearl and Assistant Administrator Morthland or this hearing today if the people, when it started, did not feel that there would be an increase in all the various activities to build up these loads? That is the only thing that worries me about this.

I realize you have to be prudent in the requests you make of Congress but do you not think that there is the likelihood that in the 10-year period you mention that this load would increase and, secondly, again I get back to this one other thing about these Nevada customers. Who are those people, Mr. Cole, whom you would serve in Nevada? Are they ranchers? Are they smalltown people? What are they mainly?

Mr. COLE. Ranchers, some small and some large, some cattle ranchers, some who raise seeds where they have irrigation wells.

I would like to go a little further on that.

Since our load study was presented to Bonneville there has been an increase I would judge in kilowatts of approximately 1,000 kilowatts. In the last 3 weeks there has been a contract let for 30 new wells to be dug in that area.

Senator NEUBERGER. You are referring to the Nevada area?

Mr. COLE. The Nevada area.

Senator NEUBERGER. Do those people presently have electric service?

Mr. COLE. No.

Senator NEUBERGER. How do they get electricity? Do they lack it, or have Delco plants on their places? How do they operate?

Mr. COLE. They have their private plants or kerosene lights.

Senator NEUBERGER. The thing I am trying to get at, Dr. Pearl and Mr. Morthland, is that we do not want a controversy. You want to serve people who need electricity and the Members of Congress want you to. The Bonneville preference clause is under a good deal of controversy now but it is still the law of the land.

I knew Senator McNary who drafted it and he told me many times in oral conversations with him, and I have letters to substantiate it, that the reason Senator McNary drafted it that way was that he felt that the principal purpose of Bonneville at the time it was built was to provide a dependable supply of power for people on the farms because at that time I think only about 24 percent of the people on farms in the State of Oregon had electricity and I believe it was only about 16 percent or 17 percent in Senator Church's State. Happily, now about 98 percent of the people on farms in Oregon have electricity. I do not think it is quite as high in Idaho but it is very high, and to some extent the purpose has been achieved.

But here are people in the State of Nevada, just across the line. They are American citizens. Their taxes and their efforts have contributed toward this. There is no legislative reason why they should not be served.

Why cannot such an administrative criterion as you have be changed to serve them? Laws are made to be changed. I know this and I might speak for Senator Church and I might not when I say that if there was a law that kept them from being served, I would be willing to use such limited influence as I have to try to change the law. Why cannot this administrative criterion be changed to take care of these people in Nevada who are American citizens and do not have the benefits and blessings of electricity? I should think that would be the purpose of the Bonneville Power Administration as Senator McNary, who created the Bonneville Power Authority, saw it.

Mr. MORTHLAND. Dr. Pearl and I are required to conduct the affairs of the Bonneville Power Administration within the limits of the policy as laid down by our superiors. That happens to be the policy at the present time.

Senator NEUBERGER. You do feel, then, that your superiors either persently or their predecessors have set down a hard and fast policy which would prevent you from serving an area across the line in Nevada; is that correct?

Mr. MORTHLAND. Yes, sir, that is correct.

Senator NEUBERGER. You feel that at the present time BPA is bound by a departmental policy in that respect that you cannot serve customers in Nevada?

Mr. MORTHLAND. I so feel.

Senator NEUBERGER. If the policy were changed by the Department, of course then your attitude would change, is that correct?

Mr. MORTHLAND. That is correct. I must point out, however, again in that connection, Senator Neuberger, that according to the best figures that we can avail ourselves of, this line would still lose $42,000 a year over a 10-year period if the Nevada load potential were served.

Senator NEUBERGER. In other words, even if the Nevada customers were included, you still believe that that line would not pay out?

Mr. MAPES. I do not want to challenge the Interior Department's basis for feasibility determinations or in fact have the presumption to inquire whether or not such feasibility studies should be part of the policy of the Department. I think, for the sake of the record, I might just read here a couple of the sections of the Bonneville Act which seem to me to be applicable, and I read this not for the sake

of you gentlemen but for the sake of the record. I hope you understand.

Section 2 (b) states:

> In order to encourage the widest possible use of all electric energy that can be generated and marketed, and to provide reasonable outlets therefor, and to prevent the monopolization thereof by limited groups, the Administrator is authorized and directed to provide, construct, operate, maintain, and improve such electric transmission lines and substations, and facilities and structures appurtenant thereto, as he finds necessary, desirable, or appropriate for the purpose of transmitting electric energy, available for sale, from the Bonneville project to existing and potential markets, and, for the purpose of interchange of electric energy, to interconnect the Bonneville project with other Federal projects and public-owned power systems now or hereafter constructed.

Similarly section 4 (d) states:

> It is declared to be the policy of the Congress, as expressed in this act, to preserve the said preferential status of the public bodies and cooperatives herein referred to, and to give to the people of the States within economic transmission distance of the Bonneville project reasonable opportunity and time to hold any election or elections or take any action necessary to create such public bodies and cooperatives as the laws of such States authorize and permit, and to afford such public bodies or cooperatives reasonable time and opportunity to take any action necessary to authorize the issuance of bonds or to arrange other financing necessary to construct or acquire necessary and desirable electric distribution facilities, and in all other respects legally to become qualified purchasers and distributors of electric energy available under this act.

I realize that you are bound by your superior's directives. Yet I wonder if any consideration has been given to changing any of the feasibility requirements for service under this very broad provision of section 2 (b) and section 4 (d) which I just read. Has there been any discussion of that that you know of, sir?

Mr. MORTHLAND. Not directly, Mr. Mapes, that I know of. I think it is recognized probably that as far as the act itself is concerned, there is no geographical limitation. There is no definition of service area as far as I know.

We are simply authorized by executive order to market power in a certain definite area.

Mr. MAPES. There is no definition of the period over which a market is to develop?

Mr. MORTHLAND. There is no legislative or official order. That is a policy which has been developed by the Bonneville Power Administration since long before my time.

Mr. MAPES. I appreciate that.

Mr. MORTHLAND. We use this 10-year period, and I would like to point out the fact that even in that 10-year period we do not amortize the entire portion of the line or substation. We amortize lines at the rate of 6.2 percent per year so that even in a 10-year period we use for our feasibility criterion we do not amortize the line in that 10-year period.

However, we feel that if the load has shown growth for that period of time sufficient to meet these requirements, the load will continue to grow and will pay the line out.

Mr. MAPES. I merely read section 2 (b) to indicate how broad the directive is referring even to existing and potential markets and, getting back to the Cal-Pac situation, somehow or other there is going to have to be additional power in the Burns area in the next

10 years if it just follows the normal load growth pattern of the Nation.

Mr. MORTHLAND. That is correct.

Mr. MAPES. Presumably, the Idaho Power Co. will have to double up its line from Vale.

Mr. MORTHLAND. I do not know how the power will get there, Mr. Mapes, on the present service facilities that are in there. I suppose some will come over the Cal-Pac and some over the Idaho Power Co.

Mr. MAPES. Of course, Idaho Power Co. is the only outside connection and Cal-Pac is going to have to have some source of load in that area.

Mr. PEARL. Senator, may I be excused? I have arranged for a number of my staff to remain and answer the questions.

Senator CHURCH. You may certainly be excused. Let me express the appreciation of the committee for your coming here to testify and for all the cooperation you have shown.

We appreciate it very much.

Mr. PEARL. I would be sorry to see anything get into this record to indicate that we are not sympathetic with the problem of the people in Harney County, because we have spent considerable time and are definitely sympathetic with this problem.

Senator CHURCH. Before you leave, Dr. Pearl, may I ask this one question? At the present time the power that is being fed into Harney County comes over an Idaho Power transmission line, is that correct?

Mr. PEARL. They are the customers of Idaho Power at present.

Senator CHURCH. The Harney Electric Cooperative?

Mr. PEARL. Yes, that is correct.

Senator CHURCH. May I ask this question: Does that line have capacity to make it feasible to supply Bonneville Administration power under the terms of a wheeling arrangement with the Idaho Power Co. over the Idaho Power Co. transmission line to this Harney Cooperative?

Mr. PEARL. Yes, it does and would provide them service of the same general quality they get now. I understand from these men that the quality of the service is not too good. That would seem to indicate that the line capacity or voltage control or something was not adequate.

Senator CHURCH. Have you approached the Idaho Power Co. with the objective or suggestion of discussing negotiations for a wheeling arrangement whereby power might be supplied over their transmission lines?

Mr. PEARL. Yes, we have on more than one occasion. Before we signed this power exchange, some 2 or 3 years ago, we asked Idaho Power if they would wheel power to Harney County for us. Of course, recently, as I indicated yesterday, we have again discussed this with them. Their reply, of course, is this: that they have a utility responsibility, they are able, willing, and capable of supplying Harney County with all the power they need.

Senator CHURCH. Therefore they refused to negotiate any kind of wheeling agreement?

Mr. PEARL. Yes. They have said "no" on a wheeling agreement.

Senator CHURCH. I see.

Mr. PEARL. If I may be excused, I will appreciate it. A number of the staff will remain for any other questions.

Senator CHURCH. Thank you.

Senator NEUBERGER. Thank you, Dr. Pearl, for being here.

Mr. Morthland, I want to ask you a couple of further questions about this. You have some Bonneville customers that are as far away geographically from the various units of the Bonneville generating system as those in Harney County, if not substantially farther; is that not correct?

Mr. MORTHLAND. I think that is correct; yes, sir.

Senator NEUBERGER. It does seem to me a distressing situation considering the basic purposes of the Bonneville Act that these people cannot get service. They are paying about 9 mills a kilowatt-hour for energy to Idaho Power Co.; is that correct, Mr. Cole?

Mr. COLE. 9.4 was the average last year.

Senator NEUBERGER. Other public agencies served by Bonneville get their power for an average of around 3 mills a kilowatt-hour; is that correct, Mr. Morthland?

Mr. MORTHLAND. Something of that order; yes.

Senator NEUBERGER. It does seem to me a very distressing, unfair situation for these people who, after all, certainly are closer to the Bonneville area where Bonneville generates its electricity, let us say than some of those in Montana, and the people in Montana are certainly entitled to service, and some of those in southwestern Oregon, for example, and they are certainly entitled to service. It does seem to me distressing that these people are paying over 9 mills a kilowatt-hour for power when other public agencies in the Northwest pay Bonneville only 3 mills and therefore have much cheaper power and a wider distribution of the energy.

I would like to ask again if you have made any studies at all of other lines that are part of the Bonneville system to see whether or not when they were constructed if the so-called feasibility was perhaps even less evidently justifiable than that for the Harney County line at this time?

Mr. MORTHLAND. I have made no such studies or none have been made under my direction since I have been with Bonneville, Senator Neuberger. I do not know. I can say I think quite positively that within the last, say, 4 years, none have been constructed that do not meet our standard feasibility requirements.

Senator NEUBERGER. Have you added very many lines in the last 4 years?

Mr. MORTHLAND. Not very many for new service to new customers. We are in more of an expansion program. With the exception of Harney County, our transmission grid practically covers the entire three States, as you know I think.

Senator NEUBERGER. That is why I feel so distressed and regretful over the situation in Harney County and actually it seems to me that basically the Bonneville Administration at the time it was built and under the conditions for which it was built was to serve just such people as there are in Harney County and these pioneering people across the line in Nevada whom Harney County would like to include as part of their load. I remember the day that President Roosevelt spoke in dedication of Bonneville Dam. I believe by memory

that it was September of 1937. He spoke about those people on the farms who did not have electrical energy.

This is evidently what he had in mind and Senator McNary had in mind. Yet these people cannot get power.

Mr. Mapes, do you have anything?

Mr. MAPES. I am as distressed as you are. Bonneville is essentially a service agency for the Government and is unable to get power into this area under any circumstances whatsoever and is apparently circumscribed by its own Interior Department policy from doing so.

You would think there would be some approach which would let them provide this Harney Co-op with power and in addition serve the other loads in the area which, according to the national load experience, are bound to double in the next 10 years along with the Harney Cooperative.

Senator CHURCH. Have you anything further you would like to say?

Mr. COLE. Mr. Chairman, I have a couple of more items after sitting through these meetings that I would like to mention, with your permission.

Senator CHURCH. Very well.

Mr. COLE. After sitting here yesterday and listening to many of these remarks that were made during the hearings by the co-op representatives, I was given the impression by the testimony in the Columbia River Basin problem in which the Idaho Power said they would not wheel to these different co-ops that maybe the Harney Electric was considered by them to be a piece of their property.

I want to make it clear that we do not consider ourselves to be a piece of their property and do not want to be a part of their monopoly in southern Idaho and eastern Oregon.

We consider ourselves to be our own utility and feel we are in the Bonneville service area and not in Idaho Power Co. service area.

Another point which came to my mind in sitting through the hearings yesterday is that Bonneville seemed to be reluctant to bargain with Idaho Power. Idaho never had any qualms about bargaining with anybody. The way I understand this is that Idaho Power has requested the FPC in this license to make the intertie or connection. For instance, I would like to illustrate that: If I had an old mustang that I could not break to lead, ride, or do anything with, and my neighbor had a good bull he was trying to sell and I could use one to help my herd a little bit, I would sure include that old outlaw in any bargain I could make to get that bull.

Those are some of the things that I just do not understand. I know I am just a simple manager in one of these co-ops, but I just do not understand why Bonneville is reluctant to bargain with the Idaho Power people.

There are some questions there that I cannot seem to get through my mind.

Senator CHURCH. I think that these questions have occurred to members of this committee and are one of the reasons for us conducting this hearing.

We do appreciate your coming, gentlemen. We are sympathetic with your problem.

Mr. WOODEN. Mr. Chairman, I have just a very short policy statement of the Oregon State Rural Electric Cooperative Association.

With your permission, might I read that into the record? The last resolution passed last December 17 is also included.

May I do that?

Senator CHURCH. You certainly may.

STATEMENT OF LEE WOODEN, PRESIDENT, OREGON STATE RURAL ELECTRIC COOPERATIVE, JEWELL, OREG.

Mr. WOODEN. Mr. Chairman and members of the committee, my name is Lee Wooden, and I am president of the Oregon State Rural Electric Cooperative Association, Jewell, Oreg.

At each of its last 6 semiannual meetings, the Oregon State Rural Electric Cooperative Association has considered the plea of the Harney Electric Cooperative, Inc., for relief from its high cost, inadequate power supply. Each time it has been determined that the cooperative system is within the Bonneville Power Administration's service area and that such relief as requested should logically and justly come from extension of BPA service to the cooperative. The Oregon State Rural Electric Cooperative Association has six times placed resolutions on record supporting the Harney Electric Cooperative's request for service from BPA.

In this, their latest request for consideration, being placed before your committee by Mr. Lloyd Hill, vice president, and Mr. Robert Cole, manager, the Harney Electric Cooperative has the wholehearted backing of the Oregon State Rural Electric Cooperative Association, which has always considered Harney Electric Cooperative to be in the BPA service area.

RESOLUTION ADOPTED BY ORECA JUNE 18, 1957

We reaffirm our request upon the Bonneville Power Administration to study the feasibility of a transmission line to serve the Harney Electric Cooperative and other loads along the proposed line, including the Crooked River area, the loads of the Central Electric Cooperative, and the normal load growth in the Burns area. We consider any failure to do this a failure to carry out the policy of Congress laid down in the Bonneville Act.

RESOLUTION ADOPTED BY ORECA DECEMBER 17, 1957

BPA SERVICE TO HARNEY ELECTRIC COOPERATIVE

Whereas the Harney Electric Cooperative and Central Electric Cooperative have applied to the Bonneville Power Administration for delivery points at Burns and Hampton; and

Whereas BPA has made cost studies which indicate double the normal construction cost, which is not supported by actual experience; and

Whereas BPA has made load growth studies which are extremely low due to the assumption of high rates of the Idaho Power Co., due to assumptions of an extremely short growing season and due to exclusion of other loads in the Burns area, and

Whereas BPA now sells power at 2.5 mills per kilowatt-hour to the Idaho Power Co. and that company in turn resells this power at 9.7 mills per kilowatt-hour to Harney Electric Cooperative or almost four times as much; and

Whereas present Idaho Power Co. service is poor and has excessive voltage variation; and

Whereas BPA is bailing out the Idaho Power Co. by furnishing as much as 95,000 kilowatts during the July 1957 peak load of 484,000 kilowatts on the Idaho Power Co. system and yet charges only dump power rates for this peaking power; and

Whereas the Harney Electric Cooperative is the only REA-financed cooperative in Oregon which presently is denied power from the Bonneville Power Administration; and

Whereas it is our view that the Bonneville Project Act in its postage stamp rate clause, widespread use clause and preference clause clearly authorizes and directs that BPA provide service to the Harney Electric Cooperative: Now, therefore, be it

Resolved, That we again urge the Bonneville Power Administration to construct the Redmond-Burns 115,000-volt transmission line to serve the Harney Electric Cooperative and the Central Electric Cooperative; and be it furthermore

Resolved, That we urge the Bonneville Power Administration to decline to sell or exchange power with the Idaho Power Co. unless that corporation first agrees to wheel Bonneville power to Harney Electric Cooperative pending construction of the Redmond-Burns transmission line.

We of the Oregon Electric Cooperatives, numbering more than 100,000 people respectfully urge this committee to do everything within your power to bring about the desired results.

(Signed) LEE WOODEN, *President.*

Thank you, Mr. Chairman.

I also have been given by Mr. Cole, the preliminary load estimate study that was referred to heretofore in the testimony for the Harney Electric Co-Op and I think that this study ought to be included in the record of the proceedings.

(Document referred to follows:)

PRELIMINARY LOAD ESTIMATE, HARNEY ELECTRIC COOPERATIVE, INC., BURNS, OREG.

This load estimate contemplates the wholesale power purchase from the Bonneville Power Administration from facilities of that agency in the area of north Harney County, with distribution by the Harney Electric Cooperative, Inc., in northern and southern Harney County, and southwestern Malheur County in Oregon and northern Humboldt County, Nev.

I. ORGANIZATION AND DIRECTION OF THE HARNEY ELECTRIC COOPERATIVE, INC.

Board of directors:
President: Lyle E. Vickers, Buchanan, Oreg.
Vice president: Lloyd Hill, Crane, Oreg.
Secretary-treasurer: Marcus J. Haines, Narrows, Oreg.
Richard Cowan, Riley, Oreg.
Neil Miller, Lawen, Oreg.
Richard Jenkins, Diamond, Oreg.
Marvin E. Young, Venator, Oreg.
Manager: Robert E. Cole, Burns, Oreg.
Consulting engineer: Robert Welty, The Dalles, Oreg.

Service area

In addition to expansion of service in the existing project area within the Harney-Malheur Lake Basin, the Harney Electric Cooperative, Inc., proposes to extend service to the Catlow Valley west of the Steens Mountains and the Alvord Lake Basin east of the Steens. Service would also be extended into the Quinn River area, King River area, Denio, McDermitt, and Oravada areas in Humboldt County, Nev.

In preparation for this load analysis, all prospective consumers in the unserved area were contacted and classified.

General classifications used, as tabulated on the summary sheets were:
Farm and home—F. and H.
Tenant house—Ten.
Nonfarm residential—NFR.
School—S.
Grange hall—GH.
Stock well—SW.
Small commercial—SC.
Large commercial, with horsepower—LC.
Irrigation, with horsepower, acreage, and months' use expected—IP.

Load data estimates were based upon this field survey of prospective cooperative membership.

Terrain

Each of the listed areas is a relatively level basin, somewhat in the nature of an old lake bed, with deep soil and substantial underground water supply. Each valley or basin is walled by relatively high mountains, but accessible to each other through low mountain passes.

Elevation of the tillable land is approximately 4,500 feet above sea level, with surrounding mountain peaks of 8,000 to 9,000 feet. While the mountains are snow covered about half of the year, the valley floors are subject to very light snowfall, and almost negligible frost loading.

The entire area is devoid of timber. Any clearing required would be in the nature of brushy willows along the stream beds. Even this is so light as to be a negligible item.

Nature of agriculture

Harney and Malheur Counties in Oregon and Humboldt County, Nev., have traditionally been the domain of the large cattle rancher, with little effort expended in development of an agricultural economy based upon closely cultivated ground.

However, within the past few years considerable effort has gone into drilling of irrigation wells with marked success. Effect of this has been, in addition to attraction of irrigated land farmers from other areas of the county, to develop new crops and new methods to diversify the agricultural aspect of the area, and to reverse the trend of fewer farm families.

A rapid expansion, uncommon to this area, is underway at this time. This will be enhanced by an adequate supply of power at an economical price throughout the area.

Industrial

At the present time substantial mining operations are carried on in the McDermitt area by the Cordera Mining Co. (cinnebar mining and mercury refining) and by the Bretz Mining Co.

Substantial high-grade copper deposits exist in the mountains near the Quinn River area, but have been only superficially developed to date. Undeveloped uranium deposits are known to exist in the area, and both gold and silver have been mined on small scale.

Other electrical loads

The attached estimates of power use are for the nominally rural service of the Harney Electric Cooperative, Inc. Other large users, either inductrial (such as Hines Lumber Co.) or other utility customers in the area could be attracted by the availability of reasonably priced power, increasing substantially the feasibility of the transmission of a large block of power into the area.

Historical load data

Since the existing facilities of the Harney Electric Cooperative were constructed during the year 1957, with initial energization in March, and with energization of subsequent sections as they were completed through November, the pattern of power use has not been established. Most of the area proposed for

irrigation was not completed until after the termination of the irrigation season.

Certain trends, however, are becoming apparent. First among these is that in less than an average of 6 months of use, the average farm use monthly exceeds the usage estimated by REA for the seventh year of operation. Second, the preparation of wells and land indicates pumping will grow as fast, or faster than the estimated rate. Third, the maximum demand contract with the Idaho Power Co. for 2,000 kilowatts, which contract is for 5 years, may be reached within the first pumping season, and thereafter may constitute a bottleneck or ceiling on growth for the subsequent 4 years.

System design

Transmission and distribution system general layout has reached a stage where it appears the following major divisions are indicated:

1. Source construction: This is indicated for Bonneville Power Administration construction as a transmission line of 115 kilovolts minimum from Redmond, Oreg., into northern or central Harney County—a distance of 125 to 140 miles. Service to the Harney Electric Cooperative would be at 115 kilovolts.
2. Construction by the Harney Electric Cooperative of approximately 190 miles of 115-kilovolt line to load centers in the area, terminating in 4 substations.
3. Construction by the Harney Electric Cooperative of substations as follows:
   (*a*) Lawen substation—5,000 kilovolt-amperes: Remodel existing 69-kilovolt substation for 115-kilovolt use.
   (*b*) Fields substation—3,750 kilovolt-amperes: 115-kilovolt to 14.4/24.9 kilovolts.
   (*c*) McDermitt substation—3,750 kilovolt-amperes: 115-kilovolt to 14.4/24.9 kilovolts.
   (*d*) Oravada substation—10,000 kilovolt-amperes: 115-kilovolt to 14.4/24.9 kilovolts.
4. Construction of 14.4/24.9 kilovolt distribution line—685 miles.

Acquisition

The town of McDermitt at present is served by a small Caterpillar diesel generating plant (100 kilowatt) owned by Albisu Bros., who have indicated their willingness to sell all facilities or remove them upon entry by the cooperative. Tentative reasonable price for the system has been reached.

Feasibility

Scope of this report is to establish an estimate of power usage in the area under consideration. It is beyond the bounds of this analysis to make a feasibility report, which will, however, be included in an application for a loan to REA to cover the work outlined in steps 2, 3, and 4 in the system design paragraph above. Studies conducted to date do indicate a feasible distribution system can be established if an adequate source of wholesale power at reasonable rates is made available in the system area.

Attachments

Load estimate: Lawen substation, Fields substation, McDermitt substation, Oravada substation, sum of all points.

Summary of consumer tabulation sheets: Lawen substation, Fields substation, McDermitt substation, Oravada substation.

Map of proposed area to be served.

LOAD ESTIMATE

Distributor: Harney Electric Cooperative, Inc.

POINT OF DELIVERY: SUM OF ALL POINTS

	1958	1960	1961	1962	1965	1970
AVERAGE NUMBER OF CUSTOMERS						
Residential (urban and rural)	46	296	308	320	344	379
Farm	152	160	178	184	225	481
Commercial	31	59	67	72	85	102
Industrial (small)	----------	2	2	3	4	5
Industrial (large)[1]	----------	2	2	2	2	2
Irrigation	47	179	212	245	296	379
Space heating	5	15	35	57	110	180
Grange hall	----------	1	2	2	2	3
Public authorities, schools	1	7	9	10	10	10
Stock wells	37	83	102	117	154	194
Game refuge and agricultural station	2	2	2	2	2	2
ENERGY SALES (MEGAWATT-HOURS)						
Residential (urban and rural)	193.2	1,308.0	1,548.0	1,802.4	2,398.2	3,432.0
Farm	1,185.6	3,039.0	3,729.6	4,692.0	6,633.0	10,794.0
Commercial	223.2	550.8	714.0	868.8	1,220.4	1,723.2
Industrial (small)	----------	300.0	300.0	450.0	600.0	750.0
Industrial (large) [1]	----------	3,250.0	3,475.0	3,700.0	4,250.0	4,750.0
Irrigation	1,128.0	6,448.0	7,736.0	9,024.0	10,952.0	14,128.0
Space heating	60.0	180.0	420.0	684.0	1,320.0	2,160.0
Public authorities, schools	200.0	332.4	351.6	372.0	410.0	478.0
Game refuge and agriculture station	90.0	120.0	130.0	140.0	180.0	200.0
Grange hall	----------	1.2	2.4	2.4	2.4	3.6
Stock wells	66.6	149.4	183.6	210.6	277.2	349.2
Total	3,146.6	15,678.8	18,719.8	21,946.2	28,243.0	38,768.0
Distribution losses	629.3	3,028.7	3,272.5	3,880.4	4,712.9	6,202.4
Energy requirements	3,775.9	18,707.5	21,992.3	25,826.6	32,955.9	44,970.4
Annual load factor	30.0	26.0	27.0	26.5	27.5	28.0
Annual maximum demand (kilowatt)	1,440	8,165	9,330	11,105	13,785	18,390
Peak month	August	August	August	August	August	August

POINT OF DELIVERY: LAWEN, OREG.

AVERAGE NUMBER OF CUSTOMERS						
Residential (urban and rural)	46	54	58	62	71	81
Farm	152	172	180	188	206	231
Commercial	31	35	37	38	41	46
Irrigation	47	79	89	99	114	140
Space heating	5	15	20	25	40	65
Public authorities, schools	1	1	1	1	1	1
Stock well	37	55	64	69	84	99
Game refuge and experiment station	2	2	2	2	2	2
KILOWATT HOURS PER CUSTOMER						
Residential (urban and rural)	4,200	5,400	6,000	6,600	8,400	10,800
Farm	7,800	12,000	13,200	15,000	18,000	24,000
Commercial	7,200	10,800	12,000	13,200	15,600	19,200
Irrigation	24,000	24,000	24,000	24,000	24,000	24,000
Space heating	12,000	12,000	12,000	12,000	12,000	12,000
Public authorities, schools	200,000	300,000	310,000	320,000	350,000	400,000
Stock wells	1,800	1,800	1,800	1,800	1,800	1,800
Game refuge and experiment station	90,000	120,000	130,000	140,000	180,000	200,000
ENERGY SALES (MEGAWATT-HOURS)						
Residential (urban and rural)	193.2	291.6	348.0	409.2	596.4	928.8
Farm	1,185.6	2,064.0	2,376.0	2,820.0	3,708.0	5,544.0
Commercial	223.2	378.0	444.0	501.6	639.6	883.2
Irrigation	1,128.0	1,896.0	2,136.0	2,376.0	2,736.0	3,360.0
Space heating	60.0	180.0	240.0	300.0	480.0	780.0
Public authorities, schools	200.0	300.0	310.0	320.0	350.0	400.0
Game refuge and experimental station	90.0	120.0	130.0	140.0	180.0	200.0
Stock wells	66.6	99.0	115.2	124.2	151.2	178.2
Total	3,146.6	5,328.6	6,099.2	6,991.0	8,841.2	12,274.2
Percent loss	20.0	18.0	18.0	17.0	16.0	16.0
Distribution losses	629.3	959.1	1,097.9	1,188.5	1,414.6	1,963.9
Energy requirements	3,775.9	6,287.7	7,197.1	8,179.5	10,255.8	14,238.1
Annual load factor	30.0	31.0	32.0	33.0	35.0	38.0
Annual maximum demand (kilowatts)	1,440	2,315	2,570	2,830	3,345	4,275

See footnote at end of table

LOAD ESTIMATE—Continued

Distributor: Harney Electric Cooperative, Inc.—Continued

POINT OF DELIVERY: FIELDS, OREG.[2]

	1958	1960	1961	1962	1965	1970
AVERAGE NUMBER OF CUSTOMERS						
Residential (urban and rural)		25	27	29	32	42
Farm		55	58	61	70	85
Commercial		5	6	7	10	12
Industrial (small)		2	2	3	5	5
Irrigation		34	39	44	54	69
Space heating			5	10	20	30
Public authorities, schools		4	4	4	4	4
Stock wells		20	25	30	40	50
Grange hall		1	2	2	2	3
KILOWATT-HOURS PER CUSTOMER						
Residential (urban and rural)		4,200	4,800	5,400	6,600	8,400
Farm		7,800	9,600	12,000	15,000	21,000
Commercial		7,200	9,000	10,800	13,200	15,000
Industrial (small)		150,000	150,000	150,000	150,000	150,000
Irrigation		32,000	32,000	32,000	32,000	32,000
Space heating			12,000	12,000	12,000	12,000
Public authorities, schools		3,600	3,800	4,000	4,500	6,000
Stock wells		1,800	1,800	1,800	1,800	1,800
Grange hall		1,200	1,200	1,200	1,200	1,200
ENERGY SALES (MEGAWATT-HOUR)						
Residential (urban and rural)		105.0	129.6	156.6	211.2	352.8
Farm		429.0	556.8	732.0	1,050.0	1,785.0
Commercial		36.0	54.0	75.6	132.0	180.0
Industrial (small)		300.0	300.0	450.0	600.0	750.0
Irrigation		1,088.0	1,248.0	1,408.0	1,728.0	2,208.0
Space heating			60.0	120.0	240.0	360.0
Public authorities, schools		14.4	15.2	15.0	18.0	24.0
Stock wells		36.0	45.0	54.0	72.0	90.0
Grange hall		1.2	2.4	2.4	2.4	3.6
Total		2,009.6	2,411.0	3,014.6	4,053.6	5,753.4
Percent loss		20.0	18.0	18.0	17.0	16.0
Distribution losses		401.9	434.0	542.6	689.1	920.0
Energy requirements		2,411.5	2,845.0	3,557.2	4,742.7	6,673.4
Annual load factor		19.0	20.0	20.0	21.0	23.0
Annual maximum demand (kilowatts)		1,450	1,625	2,030	2,580	3,315

POINT OF DELIVERY, McDERMITT, OREG.-NEV.[2]

AVERAGE NUMBER OF CUSTOMERS						
Residential (urban and rural)		209	214	219	229	240
Farm		25	28	30	35	45
Commercial		14	18	20	24	29
Industrial (large)[1]		2	2	2	2	2
Irrigation		1	4	7	13	20
Space heating			5	7	10	15
Public authorities, schools		2	2	2	2	2
Stock wells		6	8	10	15	20
KILOWATT-HOURS PER CUSTOMER						
Residential (urban and rural)		4,200	4,800	5,400	6,600	8,400
Farm		7,800	9,600	12,000	15,000	21,000
Commercial		7,200	9,000	10,800	13,200	15,000
Irrigation		32,000	32,000	32,000	32,000	32,000
Space heating			12,000	12,000	12,000	12,000
Public authorities, school		6,000	6,600	7,200	8,400	10,800
Stock wells		1,800	1,800	1,800	1,800	1,800

See footnotes at end of table.

LOAD ESTIMATE—Continued

Distributor: *Harney Electric Cooperative, Inc.*—Continued

POINT OF DELIVERY: McDERMITT, OREG.-NEV.[2]—Continued

	1958	1960	1961	1962	1965	1970
ENERGY SALES (MEGAWATT-HOURS)						
Residential (urban and rural)		877.8	1,027.2	1,182.6	1,511.4	2,016.0
Farm		195.0	268.8	360.0	525.0	945.0
Commercial		100.8	162.0	216.0	316.8	435.0
Industrial (large)[1]		3,250.0	3,475.0	3,700.0	4,250.0	4,750.0
Irrigation		32.0	128.0	224.0	416.0	640.0
Space heating			60.0	84.0	120.0	180.0
Public authorities, schools		12.0	13.2	14.4	16.8	21.6
Stock wells		10.8	14.4	18.0	27.0	36.0
Total		4,478.4	5,278.2	5,700.0	7,183.0	9,023.6
Percent loss		20.0	18.0	18.0	17.0	16.0
Distribution losses		895.7	950.1	1,043.8	1,221.1	1,443.8
Energy requirements		5,374.1	6,228.3	6,842.8	8,404.1	10,467.4
Annual load factor		38.0	38.0	37.0	36.0	35.0
Annual maximum demand (kilowatts)		1,615	1,870	2,110	2,665	3,415

POINT OF DELIVERY: ORAVADA, NEV.[2]

AVERAGE NUMBER OF CUSTOMERS						
Residential (urban and rural)		8	9	10	12	16
Farm		45	55	65	90	120
Commercial		5	6	7	10	15
Irrigation		65	80	95	115	150
Space heating			5	15	40	70
Public authorities, schools		1	2	3	3	3
Stock wells		2	5	8	15	25
KILOWATT-HOURS PER CUSTOMER						
Residential (urban and rural)		4,200	4,800	5,400	6,600	8,400
Farm		7,800	9,600	12,000	15,000	21,000
Commercial		7,200	9,000	10,800	13,200	15,000
Irrigation		52,800	52,800	52,800	52,800	52,800
Space heating			12,000	12,000	12,000	12,000
Public authorities, schools		6,000	6,600	7,200	8,400	10,800
Stock well		1,800	1,800	1,800	1,800	1,800
ENERGY SALES (MEGAWATT-HOURS)						
Residential (urban and rural)		33.6	43.2	54.0	79.2	134.4
Farm		351.0	528.0	780.0	1,350.0	2,520.0
Commercial		36.0	54.0	75.6	132.0	225.0
Irrigation		3,432.0	4,224.0	5,016.0	6,072.0	7,920.0
Space heating			60.0	180.0	480.0	840.0
Public authorities, schools		6.0	13.2	21.6	25.2	32.4
Stock well		3.6	9.0	14.4	27.0	45.0
Total		3,862.2	4,931.4	6,141.6	8,165.2	11,716.8
Percent loss		201.0	18.0	18.0	17.0	16.0
Distribution losses		772.0	790.5	1,105.5	1,388.1	1,874.7
Energy requirements		4,634.2	5,721.9	7,247.1	9,553.3	13,591.5
Annual load factor		19.0	20.0	20.0	21.0	21.0
Annual maximum demand (kilowatt)		2,785	3,265	4,135	5,195	7,385

[1] For detail see attached form BPA 436-3.
[2] Not in service in 1958.

Date compiled: Feb. 15, 1958.

LOAD ESTIMATE (LARGE INDUSTRIAL CUSTOMERS OF DISTRIBUTOR) [1]

Distributor: Harney Electric Cooperative, Inc.; point of delivery: McDermitt

Customer	1958 [2]	1960	1961	1962	1965	1970
ENERGY SALES (MEGAWATT-HOURS)						
Codera Mine		2,250,000	2,375,000	2,500,000	2,750,000	3,000,000
Bretz Mine		1,000,000	1,100,000	1,200,000	1,500,000	1,750,000
Total		3,250,000	3,475,000	3,700,000	4,250,000	4,750,000
MAXIMUM DEMAND (KILOWATTS)						
Codera Mine		450	475	500	550	600
Bretz Mine		200	220	240	300	350
Total						

[1] Customers whose individual demands are either more than 500 kilowatts, or are greater than 10 percent of the maximum demand of the distributor at the applicable point of delivery.
[2] Not in service in 1958.
Date compiled: Feb. 15, 1958.

SUMMARY OF CONSUMER TABULATION SHEETS

System: Oregon 41 Harney; substation: Lawen; date: Feb. 15, 1958

Lab sheet number	F. and H.	Ten	NFR	S	GH	SW	SC	LC	LC HP	Space heat	IP	IP HP
Oregon existing system	131		46			24	31			5	42	1,450
Oregon Sheet:												
No. 1	13					7					3	120
No. 2	8					6					2	80
Total	152		46			37	31			5	47	1,650

System: Oregon 41 Harney; substation: Fields; date: Feb. 15, 1958

Tab sheet number	F. and H.	Ten	NFR	S	GH	SW	SC	LC	LC HP	Space heat	IP	IP HP
Oregon sheet:												
No. 2	9		2	1			1				1	40
No. 3	18			1	1		2				3	65
No. 4	7	7									11	450
No. 5	1	8		1		10		1	35		9	410
No. 6		1										
Oregon total	35	16	2	3	1	10	3	1	35		24	965
Nevada sheet:												
No. 8	10	5		1		2	2	1	50		4	160
No. 9	10	2				8					5	200
No. 10											1	40
Nevada total	20	7		1		10	2	1	50		10	400
Grand total	55	23	2	4	1	20	5	2	85		34	1,365

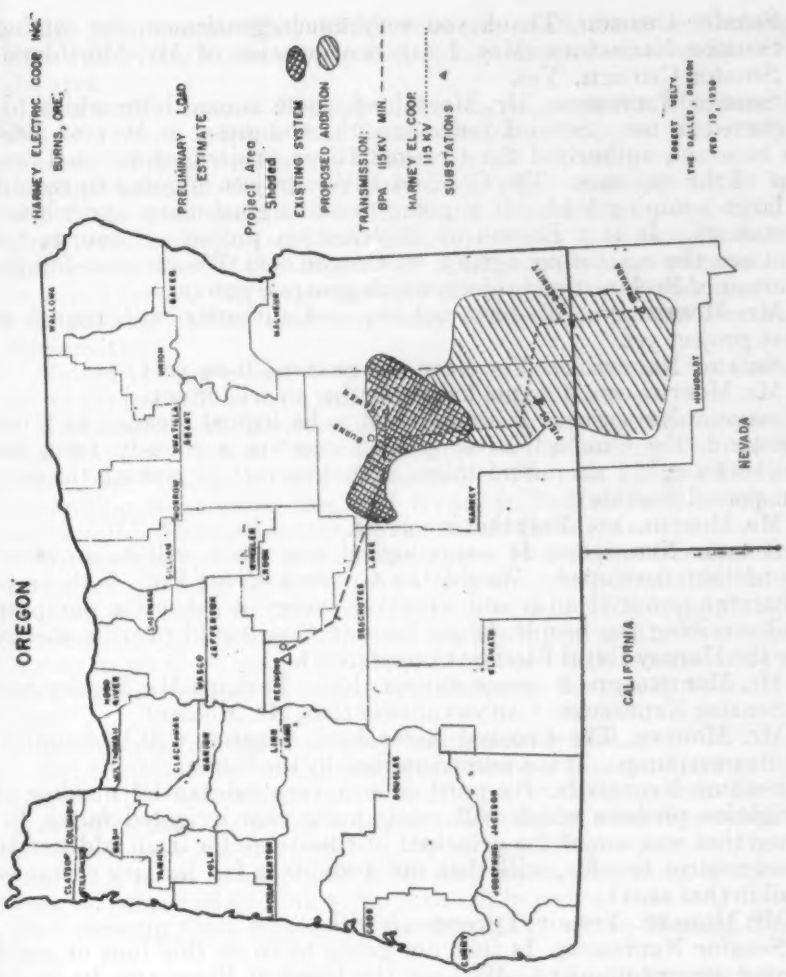
SUMMARY OF CONSUMER TABULATION SHEETS—Continued

System: Oregon 41 Harney; substation: McDermitt; date: Feb. 15, 1958

Tab sheet number	F. and H.	Ten	NFR	S	GH	SW	SC	LC	LC HP	Space heat	IP	IP HP
Oregon sheet:												
No. 6	19	1		1			2	1	200			
No. 7	1		4				2					
Oregon total	20	1	4	1			4	1	200			
Nevada sheet:												
No. 14	1	2				2						
No. 15	4	3	89	1		4	10	1	450		1	100
No. 16			110									
Nevada total	5	5	199	1		6	10	1	450		1	100
Grand total	25	6	203	2		6	14	2	650		1	100

System: Oregon 41 Harney; substation: Oravada; date: Feb. 15, 1958

Tab sheet number	F. and H.	Ten	NFR	S	GH	SW	SC	LC	LC HP	Space heat	IP	IP HP
Nevada sheet:												
Number 10	13						3				9	520
Number 11	3	2	1				1				18	1,425
Number 12	7	2									16	1,075
Number 13	12	2									11	1,030
Number 14	9	1				2					8	750
Number 16	43						1				51	2,550
Nevada total	87	7	1			2	5				113	7,350



PROPOSED AREA TO BE SERVED

Senator CHURCH. Thank you very much, gentlemen, for coming.

Senator NEUBERGER. May I ask one question of Mr. Morthland?

Senator CHURCH. Yes.

Senator NEUBERGER. Mr. Morthland, there is one thing which has occurred to me. Several years ago, the Congress, in May of 1956, to be exact, authorized the Crooked River project, of which I was one of the sponsors. The Crooked River project is going to require a large pumping load. It is going to add a good many agricultural customers. It is a Bureau of Reclamation project, of course, but you are the marketing agency in Oregon and Washington for the Bureau of Reclamation projects which generate power.

Mr. MORTHLAND. We have not received authority with respect to that project yet.

Senator NEUBERGER. You have not received it as yet?

Mr. MORTHLAND. I do not know whether we will or not.

Senator NEUBERGER. It would seem to be logical because, as I understand, the Crooked River project receives a subsidy from the Dalles Dam, if I am not mistaken, is that correct, in making the pay-out period feasible?

Mr. MORTHLAND. Yes; that is correct.

Senator NEUBERGER. It seems logical that there will be an interconnection developed. Would the Crooked River load, both as to whatever power it adds and whatever energy it needs for pumping and servicing the people, be on the line that would provide energy for the Harney Rural Electric Cooperative?

Mr. MORTHLAND. I cannot answer that. Perhaps Mr. Mohler can.

Senator NEUBERGER. Can you answer that, Mr. Mohler?

Mr. MOHLER. The Crooked River load, Senator, will be supplied by its own pump. It is a pump supplied by the Bureau.

Senator NEUBERGER. By putting in a very substantial number of irrigation projects which will create many new irrigated farms, because that was one of the principal justifications for it, in addition to flood-control benefits, will that not provide a far heavier customer load in that area?

Mr. MOHLER. Yes, sir; I presume it will.

Senator NEUBERGER. Is that not going to be on this line, or am I wrong, geographically? Will not the Crooked River area be in the vicinity of this line that would serve the Harney Cooperative?

Mr. MOHLER. It would come under the Redmond substation presumably.

Senator NEUBERGER. The substation that Mr. Morthland mentioned as being necessary for the Harney County service would be at Redmond?

Mr. MORTHLAND. The substation is already there.

Senator NEUBERGER. You mentioned that you would have to amortize the substation as part of this line.

Mr. MORTHLAND. We have to amortize the funds necessary to increase the voltage.

Senator NEUBERGER. That would be part of the expense on this line?

Mr. MORTHLAND. Yes, sir.

Senator NEUBERGER. In other words, this Harney County would be serviced by the Redmond substation. The Redmond substation and the lines in that area would also serve the farms and expanded communities on the Crooked River project.

Mr. MORTHLAND. They could serve any load, Senator Neuberger, that was within the economic distribution area of whoever is serving the area.

Senator NEUBERGER. What I am trying to get at, Mr. Morthland, is this: Do you not think that Bonneville should reopen this study of the feasibility of the Harney County service with respect to what will develop in the Crooked River area? Only last week, the Senate Interior Committee and the Senate of the United States approved an accelerated irrigation and reclamation program sponsored by Senator Anderson. Part of that was a very accelerated construction program on the Crooked River project, meaning that it will be completed substantially earlier than originally anticipated by the Bureau of Reclamation.

Should you not reopen these studies to see what impact the Crooked River project will have on this Harney County line?

Mr. MORTHLAND. Senator, I would like to correct any impression that may have gotten into this portion of the hearing that we have closed our studies on this. The studies are still open, and we are continuing to examine this, and trying to find ways to continue to develop this potential so that we can build this line.

We certainly, I am sure, are taking a look at the Crooked River potential. We are trying to take a look at every potential in the area that we can think of. We are working with the REA people at the present time in making additional studies in the area with a view to trying to see if we cannot find load potential which is sufficiently firm that we are justified in asking the Congress for money to build the line.

Senator NEUBERGER. I am very happy to hear that.

Mr. Chairman, in conclusion, with your permission, I am going to suggest that Mr. Mapes ask the Bureau of Reclamation for such detailed studies as they have or can undertake on what they think will be the electrical load growth in the central Oregon prime industrial area as a result of the Crooked River project, and these studies can then be furnished to Bonneville for such impact as they may have on then revising their studies on the feasibility of the Harney County line.

Senator CHURCH. I think that those studies might be very helpful. Certainly, they are pertinent to the questions here.

Mr. MAPES. I would suggest, Senator, that, while the Bureau is looking at that problem, they also try and give us an estimate of the potential load in the Harney County service area, particularly, because one of the major questions which has come up has been the adequacy of water supply, and so forth, for this load growth.

Senator NEUBERGER. Before we conclude, Mr. Chairman, I want to thank you, Senator Church, for the very great interest and diligence that you have shown in trying to help us solve this critical problem in southeastern Oregon. We are very grateful to you.

Senator CHURCH. I thank you very much. We all face similar problems out in the northwestern corner of the country. If we work together, I think we can get them solved. That is our best chance.

Gentlemen, thanks for coming. We certainly appreciate your testimony.

Mr. COLE. Thank you, gentlemen, for your time and interest.

Mr. MORTHLAND. Thank you, Mr. Chairman.

Senator CHURCH. I should like very much to conclude these hearings this morning. It is now 12 o'clock, and we have one remaining witness to be heard, who was scheduled to be heard this morning, Mr. Gus Norwood, of the Northwest Public Power Association.

STATEMENT OF GUS NORWOOD, EXECUTIVE SECRETARY, NORTHWEST PUBLIC POWER ASSOCIATION

Mr. NORWOOD. Mr. Chairman, members of the committee, we very much appreciate your holding these hearings. This is one of the first opportunities we have had to see some of the facts which have been brought out in the committee print, and I hope the testimony yesterday did not create the impression that these facts are commonly known about the region.

A great deal of news came out in the committee print which was published, and I think more such committee prints could be published in regard to some of the case studies which I hope to outline for your briefly this morning.

My name is Gus Norwood. I serve as executive secretary of the Northwest Public Power Association, comprising 104 consumer-owned electric systems, namely, rural electric cooperatives, public utility districts, and municipal electric distribution system of Alaska, Idaho, Montana, Washington, and Oregon, serving almost 2 million people with electricity.

Mr. Chairman, I have prepared a 10-page statement. This is the first draft. It was prepared hurriedly last night. I submit the statement for the record, in the interest of brevity.

Senator CHURCH. We appreciate that very much. The full statement will be included in the record at this point.

(Statement referred to follows:)

STATEMENT OF GUS NORWOOD, EXECUTIVE SECRETARY, NORTHWEST PUBLIC POWER ASSOCIATION, RELATING TO COORDINATION OF PROJECTS IN THE COLUMBIA RIVER BASIN

My name is Gus Norwood. I serve as executive secretary of the Northwest Public Power Association, comprising 104 consumer-owned electric systems, namely, rural electric cooperatives, public utility districts, and municipal electric distribution systems of Alaska, Idaho, Montana, Washington, and Oregon, serving almost 2 million people with electricity.

During fiscal year 1957, our systems paid into the United States Treasury over $25 million for power. In the service area of the Bonneville Power Administration alone, our systems paid the Federal Government $22 million for power. Additionally, we purchase electricity from Fort Peck, Minidoka, Palisades, Anderson Ranch, and Eklutna projects.

By means of these power purchases, we are repaying the Federal power investment in dams and transmission lines, plus interest and all costs of operation. By 1960 we will be paying over $30 million per year into the United States Treasury.

This is a sound investment program. As of June 30, 1957, the Bonneville Power Administration had collected $512 million, of which $104 million was surplus. This surplus has been used to repay Federal power investment ahead of schedule.

PURPOSE OF TESTIMONY

The purpose of our testimony is to discuss coordination or the lack of coordination of hydroelectric power projects in the Columbia River Basin.

We are discussing one of the world's largest power systems. Yet we are discussing it at a time when the Columbia River is only 15 percent harnessed.

Because of the magnitude and broad ramifications of this subject, we would like to outline a little of the perspective or framework within which the problem lies.

Finally, we would like to submit constructive solutions.

THE INTEREST OF OUR SYSTEMS

As purchasers or potential purchasers of power from the Federal power facilities, our systems have a direct economic stake in the best possible coordination of the projects in the Columbia River Basin. Some of our systems are stunted for lack of power. Others suffer because of the high cost of alternative power. Almost all other systems must help pay the costs of the lack of coordination. It must be noted that the Federal power program in the Pacific Northwest is a strictly self-liquidating enterprise. We in the region benefit when a job is well done, and on the other hand we pay for mistakes.

THE FRAMEWORK OF THE PROBLEM

Two and a half years ago the Committee on Government Operations of the House of Representatives, known as the Chudoff committee, conducted a hearing at Idaho Falls, Idaho, on September 9, 1955, at which I testified for almost 2 hours. That hearing was exploratory. We outlined the factors which have made southern Idaho an area of inadequate power supply and an area of high-cost power. We suggested a course of action to remedy the situation. At that time I submitted a nine-page statement.

As long ago as November 1, 1935, the Pacific Northwest Regional Planning Commission recommended the integration of the electric powerplants of the Snake River Basin by means of a 230,000 volt heavy duty transmission line known as the southern Idaho transmission loop, starting from McNary Dam on the Columbia River going southeast to Boise, east to the Minidoka project and on to the huge phosphate beds of southeastern Idaho and then northward to Butte, west to Spokane and terminating at Grand Coulee Dam.

The main purpose of this transmission loop would have been to coordinate the powerplants and thereby maximize the usefulness of the power as firm power. The line would have made low cost Columbia River power available throughout southern Idaho and would have opened the phosphate beds for development. The building of this line has always been opposed by the Idaho Power Company. Obviously the existence of such a Federal transmission line might disturb the ironclad power monopoly which the Idaho Power Company now enjoys not only in southern Idaho but also in eastern Oregon.

In suggesting a framework within which to place and to analyze the problems of power coordination I submit that we should begin by imagining the construction of the southern Idaho transmission loop, except that today we should use a higher voltage, probably 345,000 volts.

The second element to round out this picture is to imagine the construction of the high Hells Canyon Dam.

These two elements serve to define the framework and the perspective of coordination. These two elements, refined later as other lines and other dams are attached, make up the basic main trunk, like the main line of a transcontinental railroad.

In now turning to the problems of coordination I submit that they should be evaluated in terms of what would have been the standard of performance, what would have been the unit costs of delivered power, what would have been the economic consequences in terms of phosphate development and the general uplift of the southern Idaho economy, in short what would have been the achievement if the Hells Canyon Dam had been built together with the southern Idaho transmission loop.

The consequences would have been staggering. Southern Idaho would have had an abundant power supply at a cost about one-third or one-fourth the present costs. The consequences for economic betterment and prosperity are so huge that it is difficult to imagine any long delay before steps are taken to bring about these important benefits. These benefits would accrue not only to the State of Idaho but also to the entire region and the Nation, notably from the making available of the much-needed phosphate.

CONTRAST OF ELECTRIC RATES

Sometimes it is more difficult to point out and prove huge benefits than it is to show small benefits. The economic statistics are available to show that southern Idaho is far below the rest of the Pacific Northwest in terms of the usual economic index such as per capita person income.

Southern Idaho is also an island of high electric rates. The following table shows the contrast in residential net monthly electric bills for 250 and 500 kilowatt-hours as of January 1, 1957, as published by the Federal Power Commission:

	250 kilowatt-hours	500 kilowatt-hours
Boise (Idaho Power Co.)	$6.95	$8.80
Eugene, Oreg	3.15	5.40
Forest Grove, Oreg	3.75	5.00
Tacoma, Wash	3.20	5.42
Seattle, Wash	4.40	5.00

We are keenly aware of the steep rise in electric rates upon entering Idaho Power Co. territory. Just this past year the Northwest Public Power Association presented awards to 23 electric systems of the Pacific Northwest known as 1-cent power achievement awards. Each of these systems had achieved during the previous calendar year the distinction of serving its residential consumers with electricity at an average cost of less than 1 cent per kilowatt-hour. We could add in passing that each of these systems is additionally making a comfortable net income for its community.

In contrast southern Idaho has power shortages and high rates.

CASE STUDIES IN COORDINATION NEEDED

Against the backdrop of framework of Hells Canyon Dam and the southern Idaho transmission loop, our next procedure would be to prepare a detailed monograph on each of a long series of case studies in coordination. Time does not permit more than to list several such studies which are needed to show not only the small losses of a few million dollars per year by the present Federal power program in the region, but also the staggering losses as compared with the real potential if Hells Canyon Dam and the lines are built.

THE HARNEY CASE

The testimony presented in this hearing does little more than indicate these cases. The Harney Electric Cooperative is suffering from power shortage and high-cost power. It is under a long-range threat that the Idaho Power Co. will exert pressure to take over the system. The latest sign of this monopolistic design is the appearance of nine Idaho Power Co. top officials at last week's annual membership meeting of the Harney Electric Cooperative. It is peculiar that the Idaho Power Co. should refuse to send its top officers to appear before the Senate Committee of Interior and Insular Affairs after an invitation had been extended, while at the same time it insists upon stacking the annual membership meeting of a small, obscure, struggling electric cooperative in central Oregon.

This is not only peculiar but also ominous since the same private monopoly corporation has already digested three rural electric cooperatives after subjecting them to ruthless economic pressure.

The temporary relief for the Harney Electric Cooperative is for the Secretary of the Interior to demand that the Idaho Power Co. wheel to the cooperative. The more realistic, long-range solution is for the Bonneville Power Administration to build the Redmond-Burns 115,000-volt transmission line. The cooperative cannot be left to the tender mercies of the Idaho Power Co.

THE CASE OF THE SOUTHERN IDAHO COOPERATIVES

Early in this century the Minidoka project became the center of an important experiment in the distribution of Federal power by consumer-owned electric cooperatives and municipal distribution systems. They have been very successful until their loads forced them to the point of having to buy power from the Idaho

Power Co. Yet this Minidoka project power pool would be in excellent condition and could reduce rates by over 50 percent if it could be attached to the southern Idaho transmission loop.

THE CASE OF THE BROWNLEE DOWNSTREAM BENEFITS

For several years the private monopoly power corporations have attempted an amendment of section 10 (f) of the Federal Power Act so that upstream private dams such as the Brownlee Dam could exact a toll charge against the downstream Federal dams.

This would be an unmitigated steal, but a bigger steal has already been committed. The downstream benefits of the Hells Canyon Dam would have been well over 400,000 kilowatts of prime power at the presently authorized Federal dams, but would have almost double if the potential dams above Lewiston would be included in the computation. However, for comparability we can use the 400,000 kilowatt figure.

In comparison the estimated downstream benefits from Brownlee Dam are given by Bonneville Power Administration witnesses as only 46,000 kilowatts. This is only one-ninth of what the Hells Canyon benefits would have been.

Thus the Idaho Power Co. having despoiled one of the finest hydroelectric dam sites in the world by wasting eight-ninths of the downstream potential, turns around and seeks an amendment of the Federal law which would force the downstream Federal dams to pay for the piddling 46,000 kilowatts which remain.

The case study of the Brownlee downstream benefits should be extended to include the electrical as well as hydraulic integration benefits and losses. But the uppermost consideration is not to argue about the remaining one-ninth of the potential, but the eight-ninths as well. By building Hells Canyon Dam the entire benefit can still be achieved.

BROWNLEE DAM CAN BE RETIRED AND AMORTIZED

The virtual completion of Brownlee Dam has caused many people to shake their heads and say, "The Hells Canyon Dam issue is dead. You can't flood out a brand new dam." The answer must be in terms of the facts. The facts are clear that the tremendous benefits and vast superiority of the Hells Canyon Dam are such that the amortization of the Brownlee Dam costs can be accomplished out of Brownlee Dam power revenues during the 10-year construction period needed for the Hells Canyon Dam. Brownlee Dam is peanuts compared to Hells Canyon.

THE CASE OF THE CHANGES IN POWER LINE REGULATIONS

The long, sad, and tragic history of the lack of coordination in the Federal power program with respect to the Snake River is illustrated by one case study which the Chudoff committee has already completed.

The hearings were held May 10 to September 12, 1955, covering 463 pages entitled, "Certain Activities Regarding Power—Department of the Interior (Changes in Power Line Regulations)."

The committee report was issued March 28, 1956, as House Report No. 1975, 84th Congress, 2d session, 70 pages.

This resulted in the introduction by Representative Chudoff of H. R. 10838 on April 26, 1956, entitled, "To facilitate the transmission of electric power by the United States. We endorse this bill. We urge that it be reintroduced in the next Congress."

This is one of the specific recommendations which we must make as one of the steps, first, to enable the Government to protect itself as a proprietor in operating hydroelectric dams and selling the power output under better than distress conditions; second, to enable the Government to do a better job of regulating the giant private power monopoly corporations; and, third, to enable the Government to insist that its power be wheeled on a common-carrier basis to its own Federal reservations, such as the AEC Arco installation, and to its customers such as the small cooperatives and municipal distribution systems and public irrigation districts in southern Idaho.

Not only do we urge introduction and passage of H. R. 10838 but the committee might well consider whether by national law all utilities should be required to become common carriers much as that principle is required for railroads.

THE CASE OF THE ARCO AEC POWER CONTRACT

This is a sad case which should be reviewed.

THE CASE OF THE AMERICAN FALLS CONTRACT

Here is another sad case where a valuable water-power resource is going to waste because the Federal Government through the Bureau of Reclamation and the Secretary of the Interior is afraid to face up to the private monopoly power corporation. Even the penstocks are installed.

THE CASE OF THE LEFT HAND AND THE RIGHT HAND

The lack of cooperation between the Bureau of Reclamation and the Bonneville Power Administration is an outright public scandal.

It is a waste of public funds and public resources.

But let's take a look at the record. The first Hoover Commission did not discover such obvious cases where Federal agencies were studiously being inefficient to the benefit of private monopoly utility corporations. However, the Hoover Commission did cite similar instances in other Federal agencies and made recommendations accordingly.

The Hoover Commission recommendation was that within each Department, such as the Department of the Interior, all of the authority which the Congress had by law assigned to any and all officers within that Department, would by Presidential reorganization plan be transferred and centralized in the Department head. Thus it came to pass that all the authority of the Bureau of Reclamation and all the authority of the Bonneville Power Administration have been transferred into the hands of the Honorable Fred A. Seaton, Secretary of the Interior. All this happened some 6 years ago. Yet just yesterday the Assistant Secretary Fred Aandahl announced that the Bureau of Reclamation was just starting to look into the matter. Why has the left hand of the Secretary of the Interior and the right hand of the Secretary of the Interior operated so independently of each other? Why has not the Secretary carried out the mandate of the reorganization plan? Could it be that the resulting efficiency would have been in the public interest and could it be that the resulting efficiency would have required removing the hand of the Idaho Power Co. from one of the many pockets of Uncle Sam which that company has with great talent been able to unbutton?

The Secretary of the Interior has not been a good businessman. Mr. Aandahl has demonstrated this anew when he states that it would not be fair for him to demand wheeling to cooperatives before entering into a coordination agreement at Brownlee Dam.

THE CASE OF THE CHUDOFF 18TH INTERMEDIATE REPORT

During 1955 the Chudoff committee conducted extensive hearings on the antipublic and anticooperative policies of the Department of the Interior. The 1,686-page hearings record resulted in a caustic 314-page report, House Report 2279 of June 7, 1956, which recommended the resignations of both Clarence Davis and Fred Aandahl (see p. 10). The report, especially at pages 7 to 15, castigates the Department of the Interior in the strongest terms.

This, however, is just another case study in rounding out the same, old, consistent antipublic power policy of the Department of the Interior.

This is just another case study in the extreme steps to which the Secretary of the Interior has gone to favor the private electric monopoly corporations.

THE CASE OF THE MARCH 14, 1955, EXCHANGE AGREEMENT

The enclosed 9-page statement contains another sad example of injustice in regard to the agreement entered into by the Department of the Interior with the Idaho Power Co. whereby the Idaho Power Co. is furnished with peaking power in the summer months at dump power rates.

THE CASE OF THE PROPAGANDA POWER POOL

Yesterday's hearing was amazing on the point of the Northwest Power Pool. A long series of questions developed a record that the Northwest Power Pool was a voluntary organization, unincorporated, not covered by contracts, had no

office. It was a bodyless, mindless, soulless, homeless entity. What the record did not establish was that within the so-called Northwest Power Pool there exists the Intercompany Pool which does have an office and has a mind, indeed a single-track mind.

The Intercompany Pool is worthy of the most careful study. At the risk of oversimplification of a complicated, and in many respects legitimate activity, this pool within the pool might be described as the mechanism by means of which the private power monopoly corporations drive their hardest bargains against the Government.

Just one respect in which the private power monopoly corporations take advantage of the Government is in regard to the definition of firm and dump power. The full benefits of the hydraulic and electrical integration brought about by means of the 7,500 mile-high capacity transmission grid system of the Bonneville Power Administration have been estimated to be as high as 1,200,000 kilowatts. But the Government has been strapped down to a definition which defines all power as dump power except that which can be assured on a continuous basis under the most adverse conditions of streamflow. The private utilities have then been able to purchase the dump power at bargain rates while the so-called preference customers have regularly been buying the firm power at higher rates.

CONCLUSIONS AND RECOMMENDATIONS

It is regrettable that we were not able to respond more fully to the request of the committee. We urge further hearings later in the year and preferably in the Pacific Northwest.

It should be apparent from the above tabulation of cases that there is a lack of coordination of projects in the Columbia River Basin.

We can make these obvious recommendations:

1. Build the Hells Canyon Dam.
2. Build the Southern Idaho transmission loop.
3. Enact H. R. 10838 of the 84th Congress.
4. Cancel every contract with the Idaho Power Co., including the American Falls contract and the March 14, 1955, exchange agreement.
5. Enact S. 3114 to create the Columbia River Development Corporation.

Thank you for holding these hearings.

Mr. NORWOOD. The main approach which we have taken in our testimony is to outline a framework or perspective with respect to this hearing. In this framework we do not think it is sufficient to conduct merely a salvage operation after many mistakes have been made or are still in the process of being made. I think, in order to get a proper perspective on the coordination or lack of coordination in the Pacific Northwest we should do so in terms of the potential of what can be done and what should be done.

There are two elements in building this kind of a framework.

The first element is the southern Idaho transmission loop.

The second element is the construction of the Hells Canyon Dam.

The southern Idaho transmission loop was first proposed in a report of the Pacific Northwest Regional Planning Commission, of which, Senator Neuberger, Marshall Dana was one of the members back 23 years ago. In that report of 1935 this farsighted group envisioned a 230,000-volt transmission line going from McNary Dam down to Boise, eastward to American Falls to pick up the Minidoka project; dip down into the phosphate beds of southeastern Idaho and develop the phosphate ores; then go northward to Butte and back to Spokane and tie in with Grand Coulee Dam.

This transmission loop would have been the main line railroad by means of which you could have had coordination of all these Federal projects and the loads along that entire route.

In many respects it would have been like a main line railroad serving to tie this entire area together so that you would have the facility

for coordination, because the chief device by means of which we achieve coordination is a high-capacity transmission line.

At the Bonneville Power Administration, which is one of the largest high-voltage transmission grid systems of the world and one of the finest, the chief accomplishments at Bonneville have been through their high-voltage transmission system and, of course, the Bonneville Power Administration is the Northwest Power Pool. There is hardly any Northwest Power Pool after you take Bonneville Power Administration out of that picture.

The second element in this picture is the high Hells Canyon Dam and it is the decision, if it is a final decision, not to build that dam which creates many of the problems which have been brought forward in the Brownlee case.

For the rest of my testimony, Mr. Chairman, I should like to outline very briefly, and I will do hardly more than merely name the cases that I think should be made in the future which will suggest further opportunities for coordination and obtaining the maximum benefits from this system and then I will make some five recommendations for a course of action.

Incidentally, the southern Idaho transmission loop today would not be a 230,000-volt line. It would probably be at least 345,000 volts.

First, to comment with respect to the Harney case study since that has been gone into in this hearing, the Harney Cooperative is paying almost three times as much for power as it should. This in itself is going to choke down the growth of that area. This is a case of the hen versus the egg. I am quite convinced that if they do not get low cost power their load growth may be as bad as the pessimistic estimates of the Bonneville Power Administration indicate but we have seen time and again where the coming of low cost power opens up the area. It brings the load and I think the same will happen in the case of Harney Electric Cooperative.

I would like to indicate, Mr. Chairman, that our people have taken a pretty good look at the Harney situation and have passed a resolution which I would like to read.

At our membership meeting on April 17, the membership of the Northwest Public Power Association passed this resolution:

Resolved, That we urge Congress to include a 115,000-volt transmission line to serve Harney Electric Cooperative as part of the next appropriation bill for the Bonneville Power Administration.

Significantly the Oregon Rural Electric Cooperative Association, which meets every 6 months, has already adopted 7 resolutions expressing dissatisfaction over the Harney situation. A copy of these resolutions is attached to my statement.

(The resolutions referred to follow:)

RESOLUTIONS URGING BPA TO BUILD THE REDMOND-BURNS TRANSMISSION LINE

The convictions of the public and cooperative power leaders of the region in favor of the Redmond-Burns powerline are forthrightly stated in the following recent resolution adopted by the annual membership meeting of the Northwest Public Power Association at Spokane, Wash., April 17, 1958:

"*Resolved*, That we urge Congress to include a 115,000-volt transmission line to serve Harney Electric Cooperative as part of the next appropriations bill for the Bonneville Power Administration."

However, this is merely the latest in a long series of resolutions. The more immediately cognizant group is the Oregon Rural Electric Cooperative Association, comprising the 15 cooperatives of Oregon which meet every 6 months and have adopted 7 consecutive resolutions starting with June 21, 1955.

1. IDAHO POWER CO. INTERTIE

Whereas the Bonneville Power Administration has granted a 20-year power exchange contract to the Idaho Power Co. whereby BPA furnishes energy to carry the Idaho Power Co.'s August peak load; and,

Whereas this valuable peaking energy is handled in the exchange account as if it were dump power; and,

Whereas such depreciation of the value of peaking power is contrary to good utility practice, results in a subsidy to the Idaho Power Co., diminishes the revenue on the Columbia River power system and constitutes poor business practice: Now, therefore, be it

Resolved, That although we endorse the principle of power exchange between Bonneville Power Administration, we believe that the public interest requires the adoption of accepted utility business standards in aiming at the fair and equitable value of power.

2. POWER SUPPLY FOR SOUTH CENTRAL OREGON

Whereas most of the remaining unelectrified farms of Oregon are concentrated in the Donner-Blitzen Valley near Burns, Oreg.; and,

Whereas these people have created the Harney Electric Cooperative and have applied for an REA loan and for a BPA transmission line; and,

Whereas the Surprise Valley Electric Cooperative has applied to the Bonneville Power Administration for a power supply in order to provide better electric service to some 400 consumers in the Lakeview, Oreg., area; and,

Whereas the Bonneville Power Administration has not made a comprehensive load forecast and transmission requirement study for these areas in south central Oregon: Now, therefore, be it

Resolved, That we request the Bonneville Administrator to make a study of power needs in south central Oregon, together with a determination of economic feasibility, and if feasible, to request transmission lines in the next budget request.

3. RESOLUTION ADOPTED BY ORECA, DECEMBER 1955

Be it resolved, That we urge the Bonneville Administrator to review the relationship of the power supply application of the Harney County Electric Cooperative to the existing BPA contracts with Idaho Power Co. and California Pacific Utilities Co., and that the Administrator request these companies to wheel to the Harney County Electric Cooperative and that if the companies refuse to wheel, the Administrator point out the obligation of the Bonneville Power Administration to call to their attention those provisions of law which require him to take action which may result in his discontinuance of further service to those companies at the earliest date permitted by the cancellation clauses of the existing contracts, and furthermore, that we request the Administrator to relate these matters to other power needs in Burns and in the eastern portion of the service area of the Central Electric Cooperative by conducting a plan of service study for the entire central Oregon area.

4. RESOLUTION ADOPTED BY ORECA, JUNE 29, 1956

Resolved, That we urge the Bonneville Power Administration to restudy the feasibility of constructing a transmission line into the Harney County area, such study to take into consideration the load potential of the Crooked River irrigation project, the load potential of the Central Electric Cooperative of Redmond, and the normal load growth in the Burns area. We consider any failure to do this a failure to realize the broad statutory provision and objectives of the Bonneville Act.

5. RESOLUTION ADOPTED BY ORECA, DECEMBER 14, 1956

We reaffirm our request upon the Bonneville Power Administration to study the feasibility of a transmission line to serve the Harney Electric Cooperative and other loads along the proposed line, including the Crooked River area, the loads

of the Central Electric Cooperative, and the normal load growth in the Burns area. We consider any failure to do this a failure to carry out the policy of Congress laid down in the Bonneville Act.

6. RESOLUTION ADOPTED BY ORECA, JUNE 18, 1957

We reaffirm our request upon the Bonneville Power Administration to study the feasibility of a transmission line to serve the Harney Electric Cooperative and other loads along the proposed line, including the Crooked River area, the loads of the Central Electric Cooperative, and the normal load growth in the Burns area. We consider any failure to do this a failure to carry out the policy of Congress laid down in the Bonneville Act.

7. RESOLUTION ADOPTED BY ORECA, DECEMBER 17, 1957—BPA SERVICE TO HARNEY ELECTRIC COOPERATIVE

Whereas the Harney Electric Cooperative and Central Electric Cooperative have applied to the Bonneville Power Administration for delivery points at Burns and Hampton; and

Whereas BPA has made cost studies which indicate double the normal construction cost, which is not supported by actual experience; and

Whereas BPA has made load growth studies which are extremely low due to the assumption of high rates of the Idaho Power Co., due to assumptions of an extremely short growing season and due to exclusion of other loads in the Burns area; and

Whereas BPA now sells power at 2.5 mills per kilowatt-hour to the Idaho Power Co. and that company in turn resells this power at 9.7 mills per kilowatt-hour to Harney Electric Cooperative or almost 4 times as much; and

Whereas present Idaho Power Co. service is poor and has excessive voltage variation; and

Whereas BPA is bailing out the Idaho Power Co. by furnishing as much as 95,000 kilowatts during the July 1957 peak load of 484,000 kilowatts on the Idaho Power Co. system and yet charges only dump-power rates for this peaking power; and

Whereas the Harney Electric Cooperative is the only REA-financed cooperative in Oregon which presently is denied power from the Bonneville Power Administration; and

Whereas it is our view that the Bonneville Project Act in its postage stamp rate clause, widespread use clause and preference clause clearly authorizes and directs that BPA provide service to the Harney Electric Cooperative: Now, therefore, be it

Resolved, That we again urge the Bonneville Power Administration to construct the Redmond-Burns 115,000-volt transmission line to serve the Harney Electric Cooperative and the Central Electric Cooperative; and be it furthermore

Resolved, That we urge the Bonneville Power Administration to decline to sell or exchange power with the Idaho Power Co. unless that corporation first agrees to wheel Bonneville Power to Harney Electric Cooperative pending construction of the Redmond-Burns transmission line.

Mr. NORWOOD. The significance of these resolutions is this: It would be one thing if the Bonneville Power Administration built a transmission line which turned out to be an economic liability to the system bearing in mind that we, the rest of the customers of the Bonneville Power Administration, would have to pay for the line. These lines are not paid by the taxpayer. This is a self-liquidating public enterprise and the customers of Bonneville Power Administration must carry the complete repayment obligations and all other costs of the Administration. So when our member systems come out in favor of the Harney Electric Cooperative line they in effect are saying that if this line turns out to be a bad business proposition, we are stuck with it. It is a part of the risk that we take.

I think it is a legitimate risk to take. We have done this before. We have gone through the Orcas Island line in which there was much doubt about the economic feasibility of a $600,000 transmission cable

and much engineering risk as well. It turned out to be a profitable proposition. Our member systems are willing to go along. We are not interested in any more studies. We are just in favor of Congress building the line. Whatever risk there is, it is a risk that we are willing to take. So we are in favor of the Harney line without any more debate.

The second thing about the Harney situation that disturbs us is this continual interest of the Idaho Power Co. in attending their meetings. I was the speaker at one of the meetings a few years ago and had these Idaho Power people running all over the place. Here last week again nine Idaho Power Co. top officials were attending the meeting of this small struggling cooperative. We think this is ominous. We think the Idaho Power Co. is measuring that cooperative in terms of taking it over. This is not news to us. This company has taken over three of our electric cooperatives in the past. In each case it was a pretty ruthless operation. Construction of the Bonneville line would save the co-op.

The second case study has also been pretty well outlined here. That is the case of the southern Idaho cooperatives.

Now turning to a third case study, the case of the Brownlee downstream benefits, the committee members may recall that for the past 3 years private utilities in the Pacific Northwest have sponsored a bill to make the downstream Federal dams pay for the headwater benefits created at any upstream private dam, such as the Brownlee project. This would amend section 10 (f) of the Federal Power Act.

The proportions of the injustice in this case are staggering.

Here we have a case where had the Hells Canyon Dam been constructed you would have had initially 426,000 kilowatts of downstream prime power benefits and if the future dams between Lewiston and Hells Canyon had later been built there would have been an additional 391,000 kilowatts of downstream benefits.

Forgetting those for the moment, let us say that we have over 400,000 kilowatts of downstream benefits as the potential that could have been reached if this job had been done right in the first place.

Now, the Bonneville witnesses yesterday testified that the benefits which would now come from the Brownlee Dam would amount to 46,000 kilowatts, approximately one-ninth of what the potential could have been. So this company, having forced the region and having forced the country to sacrifice eight-ninths of this 400,000 kilowatts, now comes along and tries to get the laws changed to sacrifice the remaining one-ninth by having the downstream Federal dams and thereby the people of the region pay for this 46,000 kilowatts of power which would result downstream from Brownlee.

Senator NEUBERGER. Maybe if they had that additional revenue they would be able to afford a trip to Washington, D. C., to appear before a United States Senate committee at the invitation of the chairman of the full committee.

Mr. NORWOOD. This subsidy in itself, if they could have obtained this block of power, 46,000 kilowatts, and under the same principle they would have also have received the electrical integration benefits of 24,000 kilowatts, this subsidy would have amounted over the 50-year period of the contract to almost as large a bonanza as the fast tax write-off on which the company was caught last year. This is one of

the economic studies we do not have at hand but just in order of magnitude this would be pretty close to the amount that the tax write-offs would have given them which was $83 million over the 50-year period. I would say, as a conservative statement, that all of these benefits which the company would have been getting will be on the order of from half a million dollars to a million dollars a year.

I do hope that the committee can obtain from Bonneville a closer approximation as to just how much money is involved here that the company is trying to take from the Government.

Several excellent case studies have already been recorded in the public records by the Chudoff committee and should be mentioned in connection with this hearing.

One is entitled "Certain Activities Regarding Power Line Regulations." This hearing was conducted by the Chudoff committee in 1955. It resulted in a 70-page report, House Report No. 1975 of the 84th Congress. As a result of this hearing, Congressman Chudoff introduced House bill 10838, which would have, by law, reinstituted the powerline regulations. These regulations require companies like the Idaho Power Co., that as a consideration for getting a right-of-way to build a transmission line over the public domain, the company will agree to wheel to any Federal installation or any customer of the Government to the extent of the excess capacity of the line.

Senator CHURCH. That seems to me to be a very reasonable requirement and consideration for easement rights. It was once a regulation of the Department itself, was it not?

Mr. NORWOOD. Yes; it was, sir. This is fundamentally sound in terms of public utility economics and in terms of public utility regulation. After all, the Idaho Power Co. is not a private free enterprise. It is a public service corporation. It exists only by virtue of all the privileges which the various units of Government have given it. If those privileges were removed, the Idaho Power Co. would collapse. The right to go over public lands is just another right which enables the Idaho Power Co. to make the very attractive profits which it is earning today.

As one of my five specific recommendations, I would like to urge that this bill be reintroduced in the next Congress and be given serious consideration looking toward enactment.

The principle in the bill could be broadened. One might go further and amend the Federal Power Act to require that all utility transmission lines in the country be required to observe the common carrier principle just as railroads are now required to observe. This is an old principle in railroad economics. It has not yet arrived in the electric utility field on a universal basis.

Another case study which no one has yet mentioned is the Arco power contract. About 6 years ago when the AEC installation was started at Arco, Idaho, the question came up of how would they receive their power. We had surplus power running out of our ears at Anderson Ranch only about 110 miles away and the Idaho Power Co. was receiving most of that power at dump power rates.

The Utah Power Co. and Idaho Power Co. came forward with a contract under which the Federal Government virtually paid for the transmission line into the Arco area and paid a power rate which was roughly on the order of 20 mills. There you had the situation where

the Government was turning power over to the Idaho Power Co. at Anderson Ranch for 2½ mills and 110 miles away the Government was buying the power at about 20 mills.

I have never felt that the General Accounting Office has done an adequate job in following through on the Arco contract. I think this contract should be put under surveillance. It should be reviewed from time to time looking toward its cancellation particularly with respect to the new plants coming to southern Idaho, the Palisades project and, we hope soon, the Burns Creek project.

The American Falls contract has just been mentioned. It is a very old contract, 1923. There we have penstocks in the project, excellent opportunity to install generators. Yet by virtue of an artificial contract situation the Federal Government has its hands tied and is not able to work toward the full utilization of the resource.

With respect to the coordination between the Bonneville Power Administration and the Bureau of Reclamation, I think the record on this point is misleading in emphasizing the separation of these two entities.

The first Hoover Commission had particularly these kinds of lack of coordination in mind in recommending that all the authority of the various subdivisions within each of the departments of the Government should be transferred by means of reorganization plans to the head of that department. Under a reorganization plan which was submitted, I believe, in 1952, all of the authority of the Bonneville Power Administrator was removed from him and all of the authority of the Commissioner of Reclamation was taken away from him and was placed in one man, the Secretary of the Interior. It is the Secretary of the Interior who should be here answering all of these questions because the Bonneville Administrator has no authority whatsoever. He exists only by virtue of delegated authority from the Secretary of the Interior. This has been disturbing to us because the Secretary of the Interior, with his left hand down in southern Idaho and his right hand in the Columbia Basin, has operated as if these 2 hands were completely separate from each other, and furthermore we think that 6 years' time has been a little too long.

Granted that there is certain delay in the implementation of legislation, but the 6-year period has been entirely too long to enable the Secretary of the Interior to begin to effect a coordination between these 2 agencies for both of which he is responsible.

One of the things that disturbs us about this lack of coordination is its consequences. Time and again we have seen in the administration of the power program in the Pacific Northwest that the ineptness on the part of the Government always operates against the people and always operates in favor of the special vested interest. I can give you case study after case study to illustrate the same point.

Let me go into Montana for an example to indicate to you that when this hearing is over there are other hunting grounds. The Glasgow Airbase is only 2 miles from the Bureau of Reclamation transmission line at Fort Peck. Yet the Government owning the Glasgow Airbase and having much surplus capacity on the Fort Peck line, sold the power at 2½ mills as dump power to the Montana Power Co., which resold it to the Federal Government 2 miles away at 5½ mills. This is a steal.

The identical situation occurred at the Great Falls Airbase. The Comptroller General of the United States fortunately has raised his eyebrows and complained but nobody has done anything as a result of his complaint which was filed 2 years ago.

Those two examples illustrate the kind of case studies which you can find many of in the Pacific Northwest if you should decide to conduct a more extensive hearing in this case.

I think that most of these cases can be worked up by staff personnel without taking the valuable time of Senators, just as your excellent study was prepared here in connection with the Brownlee project.

I would like to mention two more items before concluding.

The March 14, 1955, exchange agreement between Bonneville and the Idaho Power Co. should be canceled. There is a cancellation clause and each August the Administrator can give notice of cancellation. This is a bad contract and should never have been entered into. Under this contract the Idaho Power Co. receives peaking power in summer months when the company has its heaviest load. Yet it does not have to pay the Bonneville Power Administration more than the dumping power rate. Peaking power is the most valuable power there is. It is usually worth on the order of 3 or 4 times what dump power is worth.

We think that this contract is out of proportion in the order of 3 or 4 to 1. It should be canceled. It is this kind of a contract which would give the Secretary of the Interior the kind of leverage which he needs, apparently, to get the other concessions which he should ask for in enabling him to carry out his duties under the law of taking care of the preference customers.

My last point has to do with this Northwest Power Pool, this entity that exists without any body, no office, no contracts, and is supposed to be strictly a voluntary organization. What the record did not bring out yesterday is that the Northwest Power Pool is primarily a newspaper term. The significant power organization within the Pacific Northwest is the Intercompany Pool, abbreviated ICP. It was the intercompany pool which was touched on in the antitrust hearings of the Senate Judiciary Committee with Senator Langer in connection with the investigation of the Electric Bond & Share Co. influence in our region. The Intercompany Pool does have an office. It does have people, Mr. Peterson and Mr. Cowgill. They are Ebasco Services engineers who work on a full-time basis in operating the power arrangements with the Federal Government system on such a basis as to maximize the benefits to the private utility companies. It is the Intercompany Pool which is exerting the most stringent pressure on the Federal Government to make these advantageous contracts in favor of the private utilities.

The Northwest Power Pool is not the thing that we should be looking at. We should be looking at the Intercompany Pool with its masterminding by Ebasco Services.

Mr. MAPES. Mr. Norwood, in that connection, if there were an operating entity similar to the ICP which replaced the Northwest Power Pool, would that make available to the Bonneville Power Administration and to other agencies in the area additional power which could be sold on a contractual firm basis?

Mr. NORWOOD. Let me try to answer that by means of a for instance.

The cities of Seattle and Tacoma are 2 of the 11 so-called members of the Northwest Power Pool. Four years ago they formed a new entity called the Puget Sound Utilities Council, the other members being Snohomish Public Utility District, Chelan Public Utility District, and the Puget Sound Power & Light Co. This entity has employed Jack Stevens as their pool operator and I am assured that Mr. Jack Stevens is earning his salary a good many times over by virtue of these utilities in the Puget Sound area having adopted many of the approaches of the Intercompany Pool for the advantage of their area.

Now, there are other little pools in existence. There is a real small one in the Port Angeles area. The folks in southern Idaho could very well have a little pool of their own and obtain power by buying a block of power and redividing it in the same way that Mr. Trommershausen indicated is being done by the East River Generation and Transmission Cooperative in South Dakota. This would only put us on the same kind of a basis as the private utility companies have always enjoyed.

The public bodies in the Pacific Northwest are being sold power on the basis of isolated delivery. We have to pay the maximum peaking rates, firm power rates for each of our points of delivery.

The private utilities, through this masterminding by Ebasco Services, have become the preference customers of the Government.

I do not want to push this point too far because much of this is just good management and they are to be commended for it, but they have advantages by virtue of Bonneville having granted them the tremendously valuable privilege to go to this kind of an operation without the same right having been accorded to the rest of the Bonneville customers.

I think this is discrimination against public bodies and in favor of the private utilities.

Does that begin to respond to your question?

Mr. MAPES. It indicates a response. It does not quite answer my point which was if the Bonneville Power Administration and the other members of the pool were able to set up a firm organization, would this make available a larger block of firm power? Perhaps you are not prepared to answer that question.

Mr. NORWOOD. The answer is "Yes," by all means. I understand your question now.

The benefits from the Northwest interconnected system are probably closer to 1,200,000 kilowatts today but the unfortunate part about these benefits are that to a great extent they are at loose ends.

I think I can illustrate it maybe by a simpler kind of example. They are at loose ends so that in effect they are dump power benefits instead of firm power benefits. This power is not pinned down, it is not achieving its maximum revenue producing ability to the Bonneville system.

An example would be the Baker-La Grande line. Many times Bonneville has come to this city to testify for the Baker-La Grande line. They have always claimed that they should receive between 30,000 and 60,000 kilowatts of firm power capability and should then be able to sell that additional power as firm power. This March 14,

1955, agreement with the Idaho Power Co. does not enable Bonneville to do it. The physical setup is the same. Yet the benefits to the Bonneville system are merely dump power benefits and these dump power benefits accrue to the private utilities as firm power but at dump power rates. Bonneville cannot sell it as firm power. The answer to your question is "Yes," that full coordination under the leadership of the Federal Government should enable the Federal Government to sell much of the firm power which it is now selling to private utilities at dump power rates. The Government should reprice it at higher rates.

It is my estimate that Bonneville is leaving on the table somewhere close to $5 million a year as a result of this lack of coordination where Bonneville is not getting the optimum market price from the private utilities for the power which it should get out of the pool benefits.

Mr. Chairman, I would now like to submit five recommendations by way of a framework for further hearings in this direction. These recommendations will maximize the benefits which the Pacific Northwest power system is capable of producing. We already have one of the largest grid systems in the world despite the fact that the Columbia River is only 15 percent developed. As this system grows the circumstances which we are discussing here today will be magnified.

In the first place, the Hells Canyon Dam should be built. The economics for the project are tremendous. There is already a voluminous record on the merits of the project.

The second recommendation is that the southern Idaho transmission line should eventually be constructed. As a temporary expedient wheeling arrangements with the Idaho Power Co. and other companies would be helpful.

The third recommendation is that the Chudoff bill, 10838, should be reintroduced in the next Congress and enacted.

The fourth one is that all the contracts which the Federal Government has with the Idaho Power Co. should be canceled and a broad negotiation undertaken whereby the Federal Government instead of approaching the Idaho Power Co. on a piecemeal basis insists upon a blanket contract so that all these relationships are tied together and so that the Federal Government is in a better position to protect the interests which it is supposed to serve.

My fifth recommendation is that the bill on which hearings will be held next week to create a Columbia River Development Corporation, S. 3114, introduced by Senator Neuberger, be given serious consideration as a further device to improve the methods of financing and administration in order to put this power operation in the Pacific Northwest on a more coordinated, more businesslike basis.

Thank you very much.

Senator CHURCH. Thank you very much. We do appreciate your testimony.

Senator Neuberger, do you have any questions?

Senator NEUBERGER. I have no questions, Mr. Chairman.

At this late hour I will not make any extended comments or impose upon your time. I wanted to say as I listened to Mr. Norwood I could only think of one great irony.

A few weeks ago I visited in northern New York where they have the St. Lawrence River and Niagara Falls and in that most industrialized of all of our States, a State so prosperous that it pays over 20

percent of all the Federal taxes, a group of leading businessmen not so long ago drafted to the TVA an inquiry to see how low-cost power could best be used to increase industrial and economic and manufacturing opportunities, and when I think of that situation in New York, a State with its already vast industrial development, and then I think of the State of Oregon with unfortunately its limited industrial development, and the State of Idaho with even less industrial development than the State of Oregon, and the many problems our States have, it seems to me that this Columbia River system is the one great possibility to get our States off their backs economically and to really move into genuine industrial prosperity.

Senator CHURCH. I, of course, concur wholeheartedly. I would only point out the fact that an illustrious predecessor of mine, William E. Borah, 40 years ago on the floor of the Senate, long before any of these great dams were built in the Northwest, forecast that the economic development of the Northwest would depend upon the full utilization of the public rivers and the generation of cheap power.

One of the ironies is that these 40 years later the benefits of cheap power have come in large measure to Oregon and to Washington and to Montana, but that the State he represented has received very little cheap power.

Senator NEUBERGER. And our benefits could be greater.

Senator CHURCH. And the benefits for the entire area certainly can be greatly enlarged if we move forward toward the development of the Columbia River Basin in accordance with sound principles for comprehensive use of the water resources there.

We are hopeful that this hearing will assist in that direction.

Mr. NORWOOD. Mr. Chairman, I omitted to submit for your consideration for inclusion in the record a written statement which I submitted 2½ years ago to the Chudoff committee which more fully outlines the case for the southern Idaho loop.

I wondered if you might be interested in having that for the record?

Senator CHURCH. Yes, we will be very much interested in having it and will include it in the record of the hearings.

(Statement referred to follows:)

STATEMENT OF GUS NORWOOD BEFORE THE HOUSE COMMITTEE ON GOVERNMENT OPERATIONS AT IDAHO FALLS, SEPTEMBER 9, 1955

Mr. Chairman and members of the committee, welcome to the Pacific Northwest. On behalf of the municipal electric systems, utility districts and rural electric cooperatives of the Pacific Northwest, I wish to express appreciation to each member of the committee for devoting your vacation period to the difficult task of conducting these hearings. We very much appreciate your coming here.

My name is Gus Norwood. For the past 8 years, I have served as executive secretary of the Northwest Public Power Association. This is a nonpartisan, nonprofit service organization of rural electric cooperatives, utility districts, and muncipal electric distribution systems in Alaska, Washington, Oregon, Montana, and Idaho. Throughout the Pacific Northwest, consumer-owned electric systems own and operate about $700 million of electrical facilities and serve some 2 million people. About 85 percent of these people are served by the member utilities which own and operate the Northwest Public Power Association. Of our 99 members, 50 borrow money from REA. Our systems serve most of the rural areas, but also include many cities, including Seattle, Tacoma, Eugene, Burley, about 100 cities in all.

With few exceptions, our distribution systems purchase all or part of their electricity directly or indirectly from Federal dams. In the past year, I estimate we paid into the United States Treasury about $17 million for power. By 1960, we expect to pay close to $33 million per year.

PLAN OF TESTIMONY

My statement is in four parts. First, I will touch on the power shortage in southern Idaho. Secondly, I shall discuss the proposed southern Idaho transmission loop as the means toward an abundant supply of low-cost power for southern Idaho. Thirdly, I shall present as a case study, the power exchange contract which the Secretary of Interior granted to the Idaho Power Co. on March 14, 1955. Fourthly, I shall submit recommendations for consideration of the committee.

I. POWER SHORTAGE IN SOUTHERN IDAHO

In area Idaho is one of the larger States of the Union; in natural resources one of the richest; but in terms of people Idaho is one of the smallest. Virtually untapped, 70 percent of the Nation's phosphate reserves lie in southeastern Idaho and adjacent areas. In Idaho the development of resources and the creation of job opportunities for people lies with the future. The vast resources and the contrastingly low population density, and low per capita income, of Idaho call for an attitude which I would term "development minded." Yet the attitude of certain Federal agencies suggests an attitude which I would term "in restraint of development." Especially is this true in the field of waterpower.

Next to Washington, the State of Idaho leads the Nation in the availability of undeveloped waterpower. According to the Federal Power Commission, Idaho has a hydroelectric potential of 8.8 million kilowatts—or the equivalent of 17 Bonneville Dams. The Snake River has a potential of 11,193,000 kilowatts, or one-eighth of the remaining undeveloped waterpower of the country. The Snake River is practically a virgin stream. Only 5 percent of the Snake River is utilized, while 95 percent continues to run wastefully to the sea and causes devastating floods in the downstream areas of Washington and Oregon. The power shortage in southern Idaho constitutes a case of power famine in the midst of plenty.

The State of Idaho has 14 municipal and 22 cooperative electric systems. The city of Idaho Falls went into the electric business in 1901, Weiser in 1903, Burley and Soda Springs in 1908, Albion in 1915, Bonners Ferry, 1921, and Minidoka in 1924.

A compact group of 16 of these cooperative and city electric distribution systems are located in Minidoka and Cassia Counties on the Minidoka irrigation project. Fifty-five years ago, in the year 1900, these counties had virtually no population. However, in 1902, Congress passed the Newlands Act to create the Federal Irrigation Service and in 1904 authorized the Minidoka project as one of the first Federal irrigation ventures. This is where the Federal power program was born. Here also were formed some of the first rural electric cooperatives in the Nation.

For many years the 13,400 kilowatt Minidoka powerplant provided ample power which was fed into a 94-mile, low-voltage distribution system which in turn made the energy available to the 16 systems. However, the chief characteristic of this Minidoka power system is its isolation from the other 4,500,000 kilowatts of Federal hydroelectric powerplants in the Pacific Northwest. It is because of such isolation that the area is increasingly suffering from high power rates and power shortages. Even the Palisades Dam will provide but temporary and not low-cost relief. Fortunately, engineers have long known how to solve the southern Idaho problem of isolation.

II. SOUTHERN IDAHO TRANSMISSION LOOP

Electric utility engineers have long recognized the problem and challenge presented by the isolation of the Minidoka and similarly isolated power projects and communities. In particular, this problem was recognized 20 years ago by the Pacific Northwest Regional Planning Commission which on November 1, 1935, issued a map on which was drawn in two colors a proposed high voltage, high capacity transmission grid.

The initial development was drawn in red and interconnected Grand Coulee Dam, Bonneville Dam, Spokane, Seattle, Portland, and Eugene. A second network in green color for future development included what has become known as the south Idaho transmission loop. Starting at McNary Dam on the Columbia River near Pasco, Wash., the engineers drew the 230,000-volt transmission line to Boise, Idaho, then up the Snake River to Minidoka, Idaho Falls, and the phosphate beds near Montpelier, Idaho. Then the line turned northward to Butte and back to Spokane and Grand Coulee Dam.

Four main purposes would be served by the loop. Firstly, by interconnecting all Federal dams in the Pacific Northwest the line would achieve maximum production of firm power. Much power now sold at dump power rates would be sold as firm power. Firm power not only brings in more revenue, but also commands a wider market. Most cooperative and public systems can use only firm power.

Secondly, the loop aims at making the power available throughout the region at the same uniformly low postage stamp rate. This would cut the wholesale power rate in southern Idaho approximately in half.

A third objective of the loop is to unlock such resources as the phosphate beds.

Fourthly, the loop would make available in southern Idaho a reasonable share of the vast power resources of northern Idaho. Southern Idaho is rapidly becoming a power desert while the huge sites to the north lie unused. A 50-mile circle centered at Grangeville, Idaho, includes some 8 million kilowatts of undeveloped waterpower. By means of a high voltage grid, southern Idaho would share in these wealth-creating power resources.

Much progress has been made in constructing the southern Idaho loop. The Bonneville Power Administration has built 7,000 miles of high voltage line extending throughout the Pacific Northwest. Lines run from Grand Coulee Dam to Spokane, then eastward to Hungry Horse Dam, and thence southward to Anaconda, Mont. This portion of the loop is only 200 miles from Idaho Falls. Progress on the other portion of the loop includes only an 80-mile leg from McNary Dam to LaGrande, Oreg. Thus about 500 miles of the loop remains to be built.

An alternative to Federal construction was the possibility of an arrangement for wheeling rights over privately built lines. Soon after the close of World War II the Department of Interior received power applications from southern Idaho and particularly for phosphate development. The Pacific Supply Cooperative and other farmer groups were ready, able and willing to build phosphate furnace plants if the loop were built.

Meanwhile the Idaho Power Co. requested the Interior Department for a permit to construct a 138,000-volt transmission line from the proposed Bliss Dam westward to Boise and from Bliss eastward to American Falls. The Department made a counterproposal that the company build a 230,000-volt line and rent the excess capacity to the Government for wheeling Bonneville power to the phosphate area. The company refused. The matter went to court and the company lost. Finally the Federal Power Commission granted an amendment to the Bliss Dam license granting the permit across the public lands but requiring that the line be spaced for 230,000 volts and that the excess capacity be made available for wheeling Federal power.

One of the most unfortunate and inexcusable giveaways by the Secretary of the Interior was his action last year in unilaterally waiving such wheeling rights. The work of your committee in bringing to light this conduct of the Secretary of Interior has been very helpful.

The wheeling rights on the Bliss-Boise and Bliss-American Falls line would have added 200 miles to the southern Idaho loop. By merely building a line from LaGrande, Oreg., to Boise, the Bonneville Power Administration could have been able to make Columbia River power available in the southeastern corner of Idaho. But any such possibility was precluded by another action by the Secretary of Interior.

It should be mentioned that the Bureau of Reclamation also made numerous efforts to obtain authority and funds to interconnect its dams in southern Idaho by means of high voltage lines. These efforts were stopped by the Idaho Power Co. During 1949 as plans were made for the Atomic Energy Commission operation near Arco there was serious study of bringing a Bonneville line into Arco but this was mysteriously stopped by the Atomic Energy Commission officer in charge, who was less interested in low-cost power for AEC than in throwing the business to the Idaho Power Co. and the Utah

Power Co. The Federal Government soon found itself in the silly position of selling power from Anderson Ranch Dam for 1.5 mills to the Idaho Power Co. and then buying the same power back from the same company 120 miles away for about 20 mills. There are a lot of shenanigans going on in southern Idaho. The committee would also find interesting reading in the numerous contracts between the Bureau of Reclamation and the Idaho Power Co., such as the American Falls contract of 1923 and the December 15, 1950, Boise and Minidoka projects contract No. 1506 as amended. However, these are complex matters and will merely be listed here.

III. POWER EXCHANGE AGREEMENTS BETWEEN THE SECRETARY OF INTERIOR AND THE IDAHO POWER CO.

As a specific case study in bad administration, I desire to bring to the attention of the committee the 20-year power exchange contract recently granted by the Secretary of the Interior to the Idaho Power Co.

This is a new agreement on which the ink is barely dry. The contract is dated March 14, 1955, and covers a 20-year period.

As Bonneville contracts go, this is a relatively simple 20-page document. It is simple because it involves only one point of delivery or contact between the two power systems at LaGrande, Oreg. It is simple because it is the only contract between the Idaho Power Co. and the Bonneville Power Administration.

This is an exchange agreement. It does not involve, at least not on the face of the contract, any sale of firm power or peaking power. Power may be exchanged under three patterns, or situations.

1. Exchange of excess energy.—This provision appears to be a standard clause for exchange of energy which might happen to be surplus on either system.

2. Sale of provisional energy.—During August and September of each year, when the Idaho Power Co. experiences its annual peak loads, the Government shall release additional storage water at Hungry Horse Dam on condition that such energy will be replaced by the Idaho Power Co. during the period October 1 through April, if required.

3. Emergency and breakdown relief.—This appears to be a standard clause assuring each system of power in the event of emergency or breakdown on the respective systems.

Let me now discuss these transactions and outline our objections to each one. I do not propose to be exhaustive in my testimony but rather merely to provide you with indication that this subject is loaded with pay dirt for your more detailed investigation.

EXCESS ENERGY EXCHANGE

The first transaction provides for the exchange of excess energy. To understand this deal you must appreciate that the Idaho Power Co. in the first place does not have any appreciable amount of excess energy at any time, but on the contrary, is in need of energy almost all the time, and secondly that the Idaho Power Co. experiences its annual peak loads in August, whereas the peak load on the Bonneville system occurs in December or January.

It is normal and standard practice in the making of exchange agreements among electric utilities that a study be made of the benefits to be gained from an interconnection and based on such study that the two utilities then share the costs and the benefits. By sharing costs and benefits, I mean split even, 50–50.

However, in this case we have what purports to be an exchange agreement resulting in the delivery in the summer months of Bonneville dump power to the Idaho Power Co. while that company is desperately striving to meet its peak loads. What Bonneville here calls dump power is actually the most tremendously valuable power known in the electric business, namely, peaking power. This power is much more valuable even than firm power. Without belaboring the point, I am sure that each kilowatt-hour of Bonneville dump which will be delivered to help Idaho Power Co. carry its peak loads could reasonably be priced at 1 to 2 cents per kilowatt-hour instead of the dump power rate of one-fourth of a cent. Here the Bonneville Power Administration had a remarkable opportunity to make a good sale to an eager buyer, but instead Bonneville elected to throw its power into the garbage can and then told the Idaho Power Co. to come and help itself.

Just for comparison I might mention that TVA for years has had an exchange agreement with the Southern Corp. whereby TVA receives 2 kilowatt-hours of Southern Corp. steam-generated power off-peak in return for which

TVA delivers 1 kilowatt-hour of peaking hydro. Let me emphasize that in the TVA arrangement 2 kilowatt-hours of steam power are traded for only 1 kilowatt-hour of hydro. The TVA contract illustrates a businesslike, normal, standard arrangement between two utilities. It is the type of contract which results when two competent negotiators sit down at the table. The Interior Department exchange agreement with the Idaho Power Co. reflects much competence on the part of the Idaho Power Co. However, I happen to know from my own personal knowledge of the personnel in the Bonneville staff that they too are highly competent. So I am not charging the Interior Department with incompetence. In fact, I here and now defend and stand up for their excellent competence. The contract with the Idaho Power Co. was signed because of orders from above and the able technical staff of the Bonneville Power Administration had to knuckle under or resign their jobs. From time to time many have resigned because they couldn't prostitute themselves any further.

As a general estimate I will suggest that Bonneville should receive, whether in cash or energy, at least twice as much benefit.

Sale of provisional energy

Hydroelectric power systems are weakest when all power is produced by run-of-the-river projects such as exist generally in the Idaho Power Co. system. Such a system is always exposed to the possibility of a critical water year, to an extremely cold winter, to dry weather, to the loss of head due to floods. Such a hydro system is subject to all the extremes of feast and famine. It is a hydro system with relatively little control by man.

The answer to such a system is upstream storage. Large upstream storage reservoirs such as the Hungry Horse Dam serve as electric storage batteries. The Government's Hungry Horse Dam is an extremely valuable component of the Federal power system of the Pacific Northwest. It captures the dangerous, surplus and useless summer flood waters in May, June, and July to fill the reservoir. The water is normally held until December or January or even later and then released so that power may be generated not only at the Hungry Horse powerhouse but also at 12 and ultimately 23 powerhouses downstream. Thus, summer floodwater is held for the purpose of carrying the winter peak loads of the region. The upstream reservoir also acts as an insurance policy to protect the region from the risk of a critical water year.

But the Hungry Horse Dam no sooner came into operation 2 years ago before certain industries and private utilities began to put the pressure upon the Bonneville Power Administration to let them play around with the storage capacity of Hungry Horse Dam. They would like to borrow a little storage here and there on condition that they would repay later. If they cannot repay with actual power they agree to back away from firm power contracts and thus keep the Government system from losing. However, these arrangements are extremely beneficial to the users. The Government should at least insist upon half of the benefits from such use.

This use of the storage capacity of Hungry Horse Reservoir is called provisional energy. The contract with the Idaho Power Co. does not make such provisional energy available to the company at the option of the Bonneville Administrator. The contract uses the mandatory term "shall." The contract requires Bonneville to lower the Hungry Horse Reservoir for the benefit of the company upon demand from early August until September 30 of each year. This is the 2-month period during which the Idaho Power Co. experiences its annual peak load demands. Under the provisional sale clause the Hungry Horse Dam is in effect added to the Idaho Power Co. system to help carry the company peaks. In return the Government merely asks that the energy be returned during the remaining months after October 1, if needed. However, the gamble favors the company since normally the energy will not be needed, and even if needed the repayment with energy will be made when the company is operating on an off-peak basis. Thus, peaking power is sold at dump power prices.

This provisional sale clause thus operates as an insurance policy for the Idaho Power Co. It transfers its risk to the Government. I hold that the Government should have made a painstaking analysis of the value of such service and should have insisted upon proper compensation for the service.

The sale by Bonneville of both excess energy during the summer months and of provisional Hungry Horse energy during August and September provides the Idaho Power Co. with tremendously valuable peaking power service. Such service is not available to public and cooperative power systems except at great

cost. When we reach our peak we pay the full demand charge for that month and in addition we pay a ratchet charge during each of the succeeding 11 months. Thus we have here a case of gross discrimination. The preference clause in reverse. It operates backward. The congressional mandate is ignored, the law is junked. The Bonneville power system is used to pay off political debts.

Emergency and breakdown relief

The third type of interchange between the Bonneville and Idaho Power Co. systems verges on the incredible. The contract requires that each system come to the rescue in the event of emergency or breakdown on the other system. For such emergency insurance there is no charge. The only requirement is that the energy so used during the emergency be returned when convenient.

Here again, I must invoke a discussion of what is normal, standard practice in the utility industry. Such insurance or emergency backup service is most valuable and is generally sold in return for the payment of a "standby charge" or "capacity charge." In other arrangements no charge is made but only when the two utilities are of about the same size and might reasonably be expected to benefit equally from the mutual standby service.

Let me assure the committee that these two utility system are not of equal size. The Idaho Power Co. system is in desperate condition. It has even made arrangements with the Utah Power Co. to install steam generation ahead of schedule for the account of the Idaho Power Co. This steam capacity is located 200 miles from the load center of the Idaho Power Co., and because of this distance there is risk of transmission line failure. So when we consider the Idaho Power Co. situation we can look forward to much risk of emergency and breakdown. Idaho Power Co. is a small operation. The Bonneville Power Administration markets power from dams capable of peaking at 4,500,000 kilowatts, one of the largest power systems in the world. Bonneville has 7,000 miles of high voltage, high capacity transmission lines with many closed loops and numerous arrangements and facilities to insure continuity of service. In contrast the Idaho Power Co. system probably could not take the place of four Grand Coulee generators.

To say that the Idaho Power Co. promises to come to the rescue in the event of breakdown on the Federal system is like expecting Chiang Kai-shek to fight for and to defend the geographical integrity of the United States. The emergency and breakdowns clause in this contract is a one-way street along which all benefits flow only into the coffers of the Idaho Power Co. There is no quid pro quo. This is a contract with no significant legal consideration. It is a partnership deal much like the proverbial horse-rabbit stew where the Government furnishes the horse.

Before concluding my discussion of these specific contract clauses, let me remind the committee that the Government's power system in the Pacific Northwest is no charity bazaar. The capital investment is now over $1½ billion in dams, transmission lines, and substations and every cent of this money must be repaid into the United States Treasury together with interest. The wholesale purchasers of BPA power and the users of PBA facilities must pay all operating, maintenance, and administrative costs in addition to the debt service charges. In this repayment effort it is fairly safe to say the Idaho-Power Co. will contribute little or nothing. In fact the exchange agreement will probably prevent the consummation of future contracts which would create new and additional values which would facilitate the repayment of the Federal power investment. May I add that this system is also carrying a very heavy burden of subsidy to help in the irrigation of about 1 million acres of new farmland.

Obviously the financial burden which the Idaho Power Co. shirks in this contract will be picked up by other power buyers. As I mentioned before the public and cooperative power systems pay BPA $15 million per year now and will increase their payments to about $30 million by 1960. We have a direct stake in every deal made by BPA which does not meet the standards and tests of the prudent businessman.

While on the topic of business, may I make it abundantly clear that I do not find that this contract meets the tests of what we should expect of a good business administration. Secretary McKay entered upon his high office by stating that business is in the saddle and that it is the responsibility of business to show what it can do. In submitting to you the Idaho Power Co. exchange agreement I cannot commend the Secretary of the Interior for conduct becoming a good businessman.

This concludes my discussion of the three specific clauses in the contract. These are the acts of commission which are obvious for any competent engineer to see and evaluate.

Acts of omission

The committee will recognize that the consummation of this intertie at La Grande, Oreg., between the Bonneville Power Administration and the Idaho Power Co. brings to realization the decades old dream of the southern Idaho loop. The capacity will be considerably less than it should be, but in skeleton form at least, it is the loop. This loop could integrate all Federal generating facilities in the Pacific Northwest and so achieve the maximum marketable firm power on the Federal system. The loop could also be the means for bringing low-cost energy to many areas which now are hindered in their economic development.

The negotiation of this exchange agreement provided an opportunity for the Secretary of the Interior to say to the Idaho Power Co. that he would like the company simultaneously to enter into a wheeling agreement for the purpose of transmitting low-cost Bonneville power into the Burns, Oreg., area where several hundred farmers and other rural homes and industries are desperately trying to obtain electricity. These people have formed the Harney Electric Cooperative and have applied for an REA loan. In that connection they have asked Idaho Power Co., which has a line into Burns, for a quotation on power supply. The price was so high that it had to be rejected. But the Secretary of the Interior had the chance to make a deal with the Idaho Power Co. for delivering power at Burns at less than 3.5 mills per kilowatt-hour and under those conditions that cooperative could now be under construction. The cooperative is a preference customer under the law but apparently not in the eyes of the Secretary of the Interior.

The Secretary made a great many omissions. He omitted a chance to ask the Idaho Power Co. to wheel energy for the account of the Government into southern Idaho for the purpose of commingling such Bonneville power with energy produced at Anderson Ranch, Minidoka, and Palisades Dam for use by the Bureau of Reclamation for pumping purposes, for resale to the public and cooperative systems and possibly even for the establishment of 1 or 2 phosphate-reduction furnaces.

All together the Secretary's requests, had he made them, would not have been a drop in the bucket compared to the tremendous generating capacity of the Columbia River power system. These little loads here in southern Idaho could have been taken care of, the Harney Cooperative could be under construction, and there would be some assurance for the future as well.

These omissions on the part of the Secretary of the Interior would not only have constituted good business by bringing in a lot of revenue from the sale of power as firm power instead of the present marketing as dump power, but would also have fulfilled the requirements of the law. The law directs that the Secretary of the Interior shall market power with preference not to the Idaho Power Co., but to electric systems which are owned by the people, namely, public and cooperative power systems.

This provision of numerous Federal laws to which the Secretary pays great lip service is called the preference clause. That terminology happens to be unfortunate because it is not a preference clause. Let me quote just a part of the Bonneville Project Act to recall to your mind the real purpose of the so-called preference clause. I quote from section 2 (b) of the Act:

"(b) In order to encourage the widest possible use of all electric energy that can be generated and marketed and to provide reasonable outlets therefore, and to prevent the monopolization thereof by limited groups * * *."

This is the antimonopoly clause. The intent of the law is to prevent monopoly.

Let me now turn to the monopoly question because in this contract the Secretary of the Interior, in clear and open violation of the law, is promoting and guaranteeing the further monopolization of electricity supply in southern Idaho by the Idaho Power Co.

A year previously the Secretary ordered the Bonneville Power Administration to stop construction of a 230-000-volt transmission line down through central Oregon into Klamath Falls, Oreg. Then the Secretary sold the line and all the materials, right-of-way, and the plans for completion of the line at cost to the California Oregon Power Co. A few months later that company, thus confirmed in its airtight monopoly position, demanded and was given a 17-percent rate

increase. Chemult, Oreg., is the boundary between the Columbia River power system and the iron curtain of COPCO.

In the Idaho Power Co. exchange agreement the Secretary has drawn the line at La Grande, Oreg. This is the surrender spot. Beyond that spot you go into the high-cost power land, and I mean high-cost power. The residential rates in Boise on average are double the rates in Eugene, Oreg. or Tacoma, Wash.

The main thing done by this contract is thus not stated on its face. The termination of the BPA line permanently at La Grande, Oreg., assures the company unilaterally, that the Government will not build beyond that point. This contract thus becomes the tremendously valuable franchise for the company to own and operate the entire southern Idaho transmission loop and to capture all the advantages and benefits thereof for profit only to the company's officers and stockholders. This contract becomes the deed to a great power highway. Incidentally, much of this line crosses public lands. The rights-of-ways over those lands also is contracted away beyond the reach of corrective measures by any subsequent administration or future Congress.

Together with this grant of unilateral monopoly, the Government also surrenders any future opportunity to integrate its various hydroelectric projects such as Anderson Ranch Dam, Minidoka project, Palisades Dam, and any future projects along the southern Idaho loop. Furthermore, by the absence of control over the loop, the Government will find it extremely difficult to find economic feasibility for any new hydroelectric power projects in southern Idaho such as Eagle Rock. By not being able to integrate power from its projects, the Government is over a barrel and must sell at each project under disadvantageous conditions with most of the sales on a dump-power basis. Since only the Idaho Power Co. can live on dump power, the public and cooperative power systems are frozen out.

IV. RECOMMENDATIONS

My testimony has been long but it is far from completed. Large portions of the story remain untold. To put the entire story together will require more research. For one thing all existing contracts, letters of agreements, and informal working arrangements between the Idaho Power Co. and the Secretary of the Interior should be dragged out on the table under the spotlight starting with the American Falls contract of 1923.

I believe such study will disclose that the present low per capita income in southern Idaho is related to the shortage in the supply of electricity and to the excessive power rates. I believe the study will disclose the necessity for the construction of the southern Idaho loop as a Federal line. From this line there must be assured an adequate supply of low-cost power to the public and cooperative systems.

With respect to the interchange agreement which the Secretary has given to the Idaho Power Co., I should like to conclude that it violates the letter and spirit of the Bonneville Act. It constitutes a subterfuge. It deviates from and ignores the normal, standard practices of the utility industry. It is unbusinesslike. It is highly discriminatory in favor of the Idaho Power Co. It discriminates against the interests of public and cooperative electric systems of southern Idaho as well as of the entire Pacific Northwest. This contract is a grant of a tremendously valuable monopoly. It reverses the antimonopoly clause of the Bonneville Act. It is a contract in restraint of development. It is contrary to the public interest. It cheats the people of southern Idaho of their fair share of low-cost Columbia River power. It is of doubtful legality and therefore should be rescinded at the earliest opportunity.

Thank you.

Senator CHURCH. Is there anyone else who would like to be heard?

Mr. MORTHLAND. Mr. Chairman, I wonder if I might make a brief statement to clarify the record with respect to a statement Mr. Norwood has made?

Senator CHURCH. Certainly.

Mr. MORTHLAND. In connection with the Harney County, the pessimistic statements of load growth which Mr. Norwood referred to, I would like the record to show, are not Bonneville's estimates but estimates supplied by the co-op themselves?

Mr. NORWOOD. Yes; that is because we have the same problem with REA, Mr. Chairman. I might say that the load estimate supplied by the co-op was prepared by REA, which is also pessimistic.

Senator CHURCH. If there is no further testimony this morning, these hearings will be continued until Tuesday morning at 10 o'clock, when Mr. Harold Nelson of the Bureau of Reclamation will be here to testify.

(Whereupon, at 12: 35 p. m., the hearing was recessed until 10 a. m., Tuesday, May 20, 1958.)

COLUMBIA BASIN PROBLEMS

FRIDAY, MAY 23, 1958

UNITED STATES SENATE,
COMMITTEE ON INTERIOR AND INSULAR AFFAIRS,
Washington, D. C.

The committee met, pursuant to recess, at 10:15 a. m., in room 224, Senate Office Building, Senator Frank Church presiding.

Present: Senators John A. Carroll (Colorado), Frank Church (Idaho) (presiding), and Henry C. Dworshak (Idaho).

Also present: Goodrich Lineweaver, Benton J. Stong, M. C. Mapes, special counsel, and John A. Carver, Jr., administrative assistant to Senator Church.

Senator CHURCH. The hearing will come to order.

This hearing is in continuation of the hearings that were commenced last week dealing with the principal question of the methods whereby the Idaho Power Co., in connection with its dams on the Middle Snake, would meet the requirements of the Federal license to coordinate the operation of those dams with the Northwest Power Pool and other related questions, one of which has to do with the problem faced by the cooperatives in southern Idaho with respect to obtaining additional power.

Last week representatives of those cooperatives testified here before the committee as well as representatives from the Bonneville Power Administration and from the Interior Department. This testimony was both enlightening and beneficial and I think will serve a most constructive public purpose.

As a result of this testimony, it appeared to be very much in order to call upon the Bureau of Reclamation to present its views with respect to the question concerning the procurement of power by the cooperatives that the Bureau is presently serving in southern Idaho.

I am very happy this morning to welcome first of all, my distinguished colleague, the junior Senator from Colorado, who just arrived, and secondly, my friends from the Bureau of Reclamation, Mr. Harold Nelson, who is the regional director of the Bureau, and his associates, who have come here this morning to assist in this inquiry.

Mr. Nelson, if you and your associates would like to come forward here to the committee table, we can proceed.

26447—58——13

STATEMENTS OF DON S. CAMPBELL, CHIEF, DIVISION OF POWER, BUREAU OF RECLAMATION; HAROLD T. NELSON, REGIONAL DIRECTOR, REGION 1, BUREAU OF RECLAMATION, BOISE, IDAHO; MERRILL J. MARTZ, REGIONAL SUPERVISOR OF POWER, REGION 1, BUREAU OF RECLAMATION, BOISE, IDAHO; AND EDWARD WEINBERG, SOLICITOR'S OFFICE, DEPARTMENT OF THE INTERIOR

Senator CARROLL. Mr. Chairman, I understand that we are going to discuss this morning some of the problems of Idaho. I may not be able to be with you but I want the record to show my great interest in the problems of Idaho and the very great contribution that the junior Senator of Idaho is making toward the solution of some of those problems. Although I may have to leave, I shall follow the record very carefully.

Senator CHURCH. I should like to say that I very much appreciate your coming this morning, Senator Carroll.

Mr. NELSON. Mr. Chairman and the committee, first of all let me say that it is our pleasure to respond to the invitation of the committee and be here today.

My name is H. T. Nelson, regional director. I have with me from Boise, Mr. Merril Martz, who is chief of the power division at the regional office at Boise, and also with me is Mr. Don Campbell, who, as you know, is the Chief of the Division of Power of the Bureau of Reclamation in Washington, but I should add that Mr. Campbell was previously chief of the regional office power division and has a good personal familiarity with all of our problems in that area.

Senator CHURCH. We are very happy to have you here and to welcome Mr. Campbell as well whom we have had the privilege of knowing out home.

Mr. NELSON. Mr. Edward Weinberg is also here from the Solicitor's Office. He has worked for many years on these contracts which we have.

Senator CHURCH. Mr. Nelson, before we go into your testimony this morning, I would like to include in the record in the proceedings some letters that we have just received together with a cover letter from Edwin C. Schlender, secretary of the Snake River Power Association, which relate to testimony given last week in these proceedings.

(The documents referred to follow:)

SNAKE RIVER POWER ASSOCIATION, INC.,
Burley, Idaho, May 20, 1958.

Hon. FRANK CHURCH,
United States Senate, Washington, D. C.

MY DEAR SENATOR: I am happy to comply with your request that copies of letters referred to in my testimony before the Senate Committee on Interior and Insular Affairs on May 14, 1958, be forwarded for inclusion in the record of the hearing on Columbia Basin problems.

The letters enclosed are for reference as follows:

Exhibit No. 1: To support my statement that the Bureau of Reclamation knew of our need for power before the interchange between Idaho Power and Bonneville Administration was executed but would not attempt to get BPA power wheeled in.

Exhibit No. 2: In support of my statement that the Bureau of Reclamation told Bonneville Power Administration that they, the USBR, had plenty of power for us.

Exhibit No. 3: Series of letters between Mr. Edwin Paskett and Secretary of Interior on integration.

Exhibit No. 4: Letter from Snake River Power Association to Mr. Nelson asking for the Bureau's river regulation study and Mr. Nelson's refusal.

We wish to thank you and your staff for the genuine spirit of cooperation and helpfulness rendered our group while in Washington.

Sincerely yours,

EDWIN C. SCHLENDER, *Secretary.*

EXHIBIT 1

DEPARTMENT OF THE INTERIOR,
BUREAU OF RECLAMATION,
Washington, D. C., May 4, 1955.

Hon. HENRY DWORSHAK,
United States Senate,
Washington, D. C.

MY DEAR SENATOR DWORSHAK: Your letter of April 27, 1955, enclosing a letter dated April 22, 1955, which you received from Mr. Ora E. Beasley, president, Northwest Public Power Association, Inc., pertaining to a shortage of power for additional contracting on the Minidoka project, has been received.

On December 15, 1950, the Bureau entered into a contract with the Idaho Power Co. covering electric service. That was at the time of the Anderson Ranch Dam was completed and additional power was available to the Bureau. In the absence of appropriations for the construction of a transmission line from Anderson Ranch to the Minidoka project, the Bureau was faced with the necessity of entering into a wheeling contract with the company. As a part of that contract the Bureau agreed, in addition, to the payment of a wheeling fee, to sell a small amount of peaking power to the company. As the contract now stands the Bureau is obligated to supply each year to the company 3,650,000 kilowatt-hours of energy out of a total of 126,142,500 kilowatt-hours of primary energy available each year. This energy was determined on the basis of 5-hour average daily peaking of 2,000 kilowatts. You can readily see that the amount sold to the company is very small.

As yet there is no direct connection between the transmission facilities of southern Idaho and the transmission facilities of the Bonneville Power Administration, although we understand that the Idaho Power Co. is undertaking the construction of a connection between its system at Baker and the BPA system at LaGrande, Oreg. However, in accordance with the policy of the Department, the Bureau will normally firm up a hydroelectric power supply only to the amount of hydro energy which will be available during an average water year. This has already been done under the 1950 contract with the Idaho Power Co. It is thus not possible for the Bureau to purchase additional power from BPA to sell to Bureau customers on the Minidoka project. This would place the Bureau in a power brokerage business which we wish to avoid.

With reference to the inability of the Bureau to contract with its Minidoka customers for their additional needs, conferences have been held between these customers and representatives of the Bureau's Boise regional office. We understand that these customers have organized for the purpose of purchasing their additional supply as a unit instead of each customer attempting to arrange for his own supply. Should this group reach an agreement with the Idaho Power Co. power could be purchased from the company and wheeled over Bureau of Reclamation lines to the extent that transmission and substation capacity is available.

All power sales contracts which the Bureau has made during the past 8 or 10 months contain a provision as follows: "Nothing in this contract contained shall obligate or be construed to obligate the United States to increase any contract rate of delivery hereunder. If additional power is not available from the United States, the responsibility for securing additional power shall rest wholly with the Contractor." Although this provision was not included in the older contracts in the Minidoka area, nevertheless, it is the guiding principle now in effect throughout the Bureau system.

We appreciate this opportunity to supply you with the basic policies of the Department and the Bureau with respect to additional power supplies.

Mr. Beasley's letter is being returned to you.

Sincerely yours,

W. A. DEXHEIMER, *Commissioner.*

EXHIBIT 2

DEPARTMENT OF THE INTERIOR,
BONNEVILLE POWER ADMINISTRATION,
Portland, Oreg., March 14, 1957.

Mr. GUS NORWOOD,
Executive Secretary, Northwest Public Power Association,
Vancouver, Wash.

DEAR MR. NORWOOD: Your letter of March 5 to me suggests that we serve notice on the Idaho Power Co. of intended cancellation of their contract with us for exchange energy with the objective of a more reasonable treatment on their part of public and cooperative electric systems in southern Idaho.

First, I must remind you that we do not have a firm power contract with Idaho Power; it is an energy exchange agreement. Secondly, the Bureau of Reclamation has been designated as the marketing agency in southern Idaho, and Reclamation has indicated to me that they have sufficient power to meet the requirements of the public agencies in that area. Wheeling agreements exist between Idaho Power and Reclamation at present.

Because of these conditions, I see nothing to be gained in the proposed cancellation of the agreement with the Idaho Power Co. In fact, I can see considerable loss to the Administration and in turn to the area if this contract were to be canceled.

Sincerely yours,

WM. A. PEARL, *Administrator.*

EXHIBIT 3

RAFT RIVER ELECTRIC COOPERATIVE, INC.,
October 11, 1957.

Hon. FRED A. SEATON,
Secretary of the Interior, Department of the Interior,
Washington, D. C.

DEAR MR. SECRETARY: We have learned on good authority that the Idaho Power Co. is seeking to negotiate a contract with Bonneville Power Administration for the exchange of power between southern Idaho and the rest of the Columbia Basin over their LeGrande tie, in which they are asking for 3 kilowatts of summer pumping power for 1 kilowatt of storage released from Brownlee.

We urge you to consider that the execution of such a contract fundamentally puts us in the Bonneville marketing area since we are tied right to the Idaho Power transmission grid with our transmission line.

We are desperately in need of more power, especially irrigation pumping power. We were informed by the Bureau of Reclamation that "we were lucky we didn't have the switch pulled on us" last summer.

We have tried to buy power from Idaho Power Co. but as yet have not had a better rate quoted than 13 mills which is much higher than we can be expected to pay; since Idaho Power delivers irrigation pumping power to their own consumers in this area for approximately 6.5 mills.

Here we have two separate marketing agencies in the same river basin, both under the Department of the Interior, and physically integrated. The one agency is short of power to serve its preference customers and the other has an abundance of power available at the time the other is short, clearly then it is the responsibility of the Secretary of the Interior to act according to the provisions of the preference law and take action to insure that the preference customers who are in need are served.

The Government as well as the people of the Northwest would benefit greatly if the two systems were integrated and coordinated.

We respectfully request that in connection with the present negotiations for exchange of power with the Idaho Power Co. under the requirements of the Federal Power Commission license for Brownlee Dam that your administration stipulate as a condition for any contract that the Idaho Power Co. agree to wheel Columbia River power or other Government energy under Bonneville Power Administration standard wheeling agreements to all preference customers within the reach of Idaho Power Co. facilities.

We furthermore respectfully urge that any exchange or sales contract be immediately null and void if the company declines at anytime to wheel to preference customers.

Very truly yours,

EDWIN H. PASKETT, *President.*

DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D. C., October 24, 1957.

Mr. EDWIN H. PASKETT,
President, Raft River Rural Electric Cooperative, Inc.,
Malta, Idaho

DEAR MR. PASKETT: This will reply to your letter of October 11 in which you raised certain questions regarding the negotiations for exchange of power between the Bonneville Power Administration and the Idaho Power Co. under the requirements of the FPC license for Brownlee Dam.

This matter is receiving careful review and further reply will be sent to you during the early part of November.

Sincerely yours,

FRED G. AANDAHL,
Assistant Secretary of the Interior.

DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D. C., December 20, 1957.

Mr. EDWIN H. PASKETT,
President, Raft River Rural Electric Cooperative, Inc.,
Malta, Idaho.

DEAR MR. PASKETT: This is in further reply to your letter of October 11, in which you request that the Department give consideration to working out an arrangement whereby your cooperative will receive additional Government power for irrigation pumping. You also request that we use the occasion for the negotiation of an exchange agreement with the Idaho Power Co. for the coordination of its Brownlee and Oxbow projects with the Northwest power pool as a means of getting wheeling provisions for Columbia River power.

In this instance, coordination of the Idaho Power Co.'s Brownlee and Oxbow plants with the Northwest power pool and the wheeling of Bonneville Power Administration secondary energy by the company are not interrelated and one should not be used as a leverage for the other. The FPC license requires coordination, and the Department cannot as a matter of right under the license require the Idaho Power Co. to contract to wheel Columbia River power for the Government.

The staffs of the Bureau of Reclamation and the Bonneville Power Administration are making studies which will throw additional light on the feasibility of the Bureau of Reclamation utilizing Bonneville Power Administration dump energy to serve additional power to your cooperative and others in southern Idaho. However, we must caution that there is a serious question as to whether this dump energy would be of any real benefit to your cooperative without the availability of some other source of firming energy and a satisfactory wheeling arrangement. It must also be borne in mind that the wheeling distance is in excess of 300 miles and the wheeling cost would have a substantial impact on the economic feasibility.

Upon completion of the above-mentioned studies, we shall advise you further regarding this matter. In the meantime, the Bureau of Reclamation regional office will be in touch with you on the various aspects of the problem.

Sincerely yours,

FRED G. AANDAHL,
Assistant Secretary of the Interior.

RAFT RIVER RURAL ELECTRIC COOPERATIVE, INC.,
January 2, 1958.

Mr. FRED G. AANDAHL,
Assistant Secretary of the Interior,
Washington, D. C.

DEAR MR. AANDAHL: Reference is made to your reply of December 20, 1957, to our letter of October 11, in which we requested that, in order to relieve the power shortage in southern Idaho and to financially enhance the Federal Government's power operations in the area, the Bureau of Reclamation, region 1, attempt to work out an arrangement with Bonneville Power Administration to wheel some power into Idaho from the Bonneville system.

We note that you make specific reference that the FPC requirement that Idaho Power Co. coordinate their Brownlee Dam with the Northwest Power Pool is in no way related to the wheeling of power between the Northwest Power Pool and the southern Idaho Power Pool.

After all the Northwest Power Pool is practically all Bonneville Administration power and the southern Idaho Pool is, in a very substantial part, Bureau of Reclamation power.

If coordination of the two systems does not mean the exchange of energy for the greatest benefit to the most people concerned, then what does it mean?

Does it mean only that Idaho Power Co. is to be allowed to sit between the two systems owned by the people and reap the benefits of power exchange which in reality gives them firm power from the Government plants at dump power rates? Is this to be allowed especially when the company shows no consideration for the urgent requirements of a large block of the public for power at a reasonable cost?

We also note that the staffs of the Bureau and of Bonneville are studying the situation to see if there is feasibility of the Bureau using any of Bonneville's dump power.

We also have had studies made that show that the Bureau has huge blocks of secondary energy that only need a small amount of firming in 1 year out of 22 to make it firm power.

Since Bonneville's critical water year has not coincided, in the past, with the Bureau's critical water year it would appear that there are indeed great benefits to be had with an exchange agreement.

The fact that we are 300 miles from Bonneville system should be no great disadvantage since southern Oregon is about the same distance, yet they enjoy a 4-mill rate from Bonneville Power.

Another fact which indicates that the wheeling distance is of no consequence is that Idaho Power Co. is asking for 200,000 kilowatts of Bonneville Power to be wheeled into their system and we are situated very near the heart of that system.

I am sure that when all the facts concerning the situation are viewed with clarity and an attitude of fairmindedness that a solution to the problem will be found that will be of benefit to all concerned.

Very truly yours,

EDWIN H. PASKETT, *President.*

DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D. C., January 14, 1958.

Mr. EDWIN H. PASKETT,
President, Raft River Electric Cooperative, Inc.,
Malta, Idaho.

DEAR MR. PASKETT: Thank you for your letter of January 2, referring to the possibility of supplying surplus Bonneville Power Administration energy to your cooperative.

We would suggest that you make available to the Bureau of Reclamation and the Bonneville Power Administration, if you have not already done so, the studies your organization has made with respect to secondary energy on the Bureau's system and its relationship to the BPA system operations.

In the discussion in our December 20, 1957, letter of the relationship of wheeling to the problem of coordination, we intended only to indicate that the wheeling of federally generated power to the Government's customers is not a requirement imposed upon the Idaho Power Co. by the FPC license provision with respect to coordination by the company with the Northwest Power Pool.

We are giving continuing attention to power marketing activities in the Pacific Northwest as they relate to the problems concerning the Raft River Electric Cooperative. As previously indicated, you will be advised as to our progress.

Sincerely yours,

FRED G. AANDAHL,
Assistant Secretary of the Interior.

EXHIBIT 4

SNAKE RIVER POWER ASSOCIATION,
September 7, 1957.

Mr. HAROLD T. NELSON,
Director, Region 1, United States Bureau of Reclamation,
Boise, Idaho.

DEAR MR. NELSON: Mr. Herbert Westfall of R. W. Beck & Associates informs us that he was unable to get copies of river regulation study U. S. 55–1 of the upper Snake plants which is essential to them to complete the work which the Snake River Power Association had employed them to do.

We feel that the reason they were not made available probably was due to a misunderstanding of the terms by which Beck & Associates were employed by us.

We are paying them on an hourly basis, plus expenses, to review such studies only and not to develop such studies. The studies if made available would then be in the custody of the Snake River Power Association and not belong to R. W. Beck.

We will be glad however, to pay the costs of duplicating if copies are not on hand.

It is quite important that Beck & Associates be allowed to progress with these studies as speedily as possible in order that members of our association, whose electrical demands are growing daily, can determine a solution to their power supply before the situation gets too critical.

We wish to express our appreciation to your organization for the cooperation and aid as extended thus far in this effort we are undertaking.

We trust that the copies of U. S. 55–1 can be forwarded to us at the earliest possible date in light of this clarification.

Very truly yours,

J. C. BROG, *President.*
EDWIN C. SCHLENDER, *Secretary.*

DEPARTMENT OF THE INTERIOR,
BUREAU OF RECLAMATION,
REGIONAL OFFICE, REGION 1,
Boise, Idaho, September 16, 1957.

SNAKE RIVER POWER ASSOCIATION,
Care of Raft River Rural Electric Cooperative, Inc.,
Malta, Idaho.

GENTLEMEN: In your letter of September 7, you have inquired as to the availability of copies of our regulation study of the upper Snake River, designated U. S. 55–1.

The Bureau has carefully considered releasing the study to you; but since it is a work paper for use in our office combining basic data with certain individual judgment factors, we feel that a detailed study of this type may be misinterpreted if it is used by persons not thoroughly familiar with the assumptions that are inherent in this type of study. Actually, the study represents our engineers'

opinion of how the water supply available in the period 1928–53 might have been used if the present or near future irrigation and power development had been made prior to 1958. Obviously, many assumptions had to be made by the engineers as to how the water would have been regulated under the assumed conditions.

For these reasons, the Bureau does not feel that it is advisable to release facsimile copies of the study. However, we will continue to make the subject study available for perusal in our office.

Very truly yours,

H. T. NELSON, *Regional Director.*

Senator CHURCH. Mr. Nelson, do you have a prepared statement to make this morning?

Mr. NELSON. Mr. Chairman, I do not have a prepared statement that relates directly to the testimony that your committee received last week. I did not get a chance to read the transcript until the last day or so. However, I assumed that the committee would be interested in the historical background of how the five plants the Bureau has now in south Idaho were authorized in the first place and how the plants have been operated since the first one was built in 1909.

Senator CHURCH. I think that would be helpful, Mr. Nelson, because I think it would tend to put this whole question into perspective, and the whole objective of this committee in pursuing this inquiry is an endeavor to find an equitable solution to a problem that we face in Idaho.

Mr. NELSON. I appreciate that.

Senator CHURCH. Therefore, the testimony of this kind helping to put the whole picture into perspective, I think, would be beneficial.

Mr. NELSON. During the ensuing years since 1909 there have been 40 different contracts involving those plants with the predecessor utilities and the present utilities of the area to accomplish various purposes including wheeling and integration.

Perhaps the best thing to do would be to insert this background material into your record for the information of the committee.

Senator CHURCH. Very well. The material that you have prepared in the way of background material will be inserted at this point in the record of the proceedings.

(The material referred to follows:)

BACKGROUND STATEMENT ON THE DEVELOPMENT AND INTEGRATED OPERATION OF BUREAU OF RECLAMATION POWERPLANTS IN IDAHO

The first Federal powerplant in the entire Columbia River Basin went into service on the Minidoka project in 1909. There are now in service 5 separate hydro plants with a total installed capacity of 163,900 kilowatts which were built as a part of the Boise and Minidoka irrigation projects.

These plants were built primarily to furnish a power supply to Federal irrigation project pumping loads but there has been surplus capacity and energy, particularly during the irrigation season to serve preference customer loads and for off-project markets for secondary energy. In every case off-project revenues are required to assist in the repayment of project costs allocated to irrigation and to maintain reasonable irrigation pumping rates.

Every opportunity has been taken to improve the quality of the combined output of all plants by integration consistent, of course, with project irrigation operation criteria. Integration has been accomplished through wheeling contracts with operating utilities of the area. The first such contract was signed in 1911 with Idaho-Oregon Light & Power Co. (a predecessor of the Idaho Power Co.) and there have been a total of 40 different contracts through the intervening 47 years. Some of these contractual relationships have been very complicated because operations at each plant are necessarily tied into the release of storage and natural flow irrigation water rights.

The powerplants and their capabilities are as follows:

Plant	River	Rating (kilowatt)	Maximum capability (kilowatt)	Minimum capability (kilowatt)	Initial operation
Minidoka project: Minidoka	Snake	13,400	15,000	15,000	May 1909
Boise project:					
Diversion Dam	Boise	1,500	2,000	2,000	May 1912
Black Canyon	Payette	8,000	10,000	10,000	December 1925
Anderson Ranch	Boise	27,000	34,500	16,500	December 1950
Palisades project: Palisades	Snake	114,000	[1] 114,000	58,000	February 1957
Total		163,900	175,500	101,500	

[1] Maximum capability not yet established by tests and experience.

NOTE.—The calendar year 1957 sales from these powerplants amounted to $2,066,421 for 651,061,832 kilowatt-hours. The overall average revenue was 3.16 mills per kilowatt-hour.

The Minidoka, Boise diversion and Black Canyon powerplants operate at relatively constant heads throughout the summer peak load period, and consequently their capability does not vary. However, the Anderson Ranch and Palisades powerplants are located at irrigation storage resorvoirs and are both subject to loss of head and power capability because of drafts of irrigation storage. In the extreme, the Anderson Ranch capability drops to 16,500 kilowatts, and the Palisades to 58,000 kilowatts. The combined capability of the five plants, therefore, varies from 175,500 kilowatts under most favorable conditions to 101,500 under critical conditions.

The power loads which are supplied from these powerplants are primarily project uses for irrigation pumping. These requirements plus the other requirements incidental to project operations require approximately 88,000 kilowatts. In addition, firm power contracts have been negotiated with 20 customers who purchase power for resale. It is estimated that, when all customers' loads equal their contract rates of delivery, their requirements during the peak of the irrigation season will total 57,000 kilowatts. Thus, the Bureau has commitments to serve peak loads totaling 145,000 kilowatts in July and August. Because of the variations in water supply, these hydroelectric powerplants are usually able to produce more energy than is required by the firm loads. Such energy is nonfirm and is classed as either secondary or dump energy. Provisions have been made to sell the nonfirm energy to the Idaho Power Co. and to the Utah Power & Light Co. The Bureau does not guarantee the availability of nonfirm energy.

HISTORY OF DEVELOPMENT

Because of the interest that has been shown in these hearings in the steps the Bureau has taken to integrate its powerplant operations in southern Idaho, I should like to review very briefly some of the history of the Bureau's operations.

MINIDOKA PROJECT

The Minidoka powerplant was constructed in 1909 in a desert where there was no electric power supply. The plant was required to produce electric power for irrigation. It had large surpluses of winter power, so there naturally developed an effort to find a use for winter power by encouraging residential and commercial use including electric space heating. Transmission lines were constructed in the new project area to distribute the power through the growing communities and to farmer cooperatives. As a result, the Minidoka power system grew as the project developed, and the powerplant was able to supply all of the requirements until about 1930. However, in 1926 the first interconnection was made with the Idaho Power Co. There were some interchanges of power as early as that date. In 1930 the power loads had developed to the point where there was growing concern as to the lack of standby capacity in the event of troubles at the Minidoka powerplant, so arrangements were made to provide a 10,000-kilowatt interconnection with the Idaho Power Co. at Minidoka Dam. The early 1930's proved to be drought years for irrigation and the American Falls Reservoir did not fill. The obvious solution was to find some means for saving winter water, part of which was being used for operation of the Minidoka powerplant. The Bureau's proposal was to construct the Govern-

ment powerplant at American Falls Dam, so that smaller releases of water through two powerplants could produce the required power. The arrangement finally arrived at in 1934 was to curtail the operation of the Minidoka powerplant and utilize power from the Black Canyon powerplant on the Boise project to supply the needed winter power. This marked one of the initial steps of integrating the Boise and Minidoka power operations and was accomplished by means of contracts with the Idaho Power Co. Operations continued under this arrangement until 1951. However, by 1949, the power requirements at Minidoka had begun to exceed the power supply available from the Minidoka and Boise project powerplants. The year 1951 marked the beginning of operations of the Anderson Ranch powerplant of the Boise project which necessitated restudy and negotiation of new contracts to include the Anderson Ranch powerplant as an integral part of Bureau operations.

BOISE PROJECT

Concurrent with the above developments on the Minidoka project, the power developments on the Boise project commenced with the construction of Boise diversion powerplant in 1912. This small plant was constructed to supply construction power for the building of Arrowrock Dam on the Boise River. Construction of the Black Canyon Dam on the Payette River for irrigation purposes created a power potential which was planned to be used for pumping on the Black Canyon division of the Boise project. The power was not needed at that time, but the Gem irrigation district, now a part of the Owyhee project, required low cost power for pumping, and the Black Canyon plant was constructed in 1926. The Black Canyon powerplant operated initially as a run-of-river plant, but it soon developed that it could not furnish adequate amounts of power for irrigation pumping the last part of the irrigation season. Its supply was firmed up by the construction of the Deadwood Reservoir, which began storing water in November 1930. Black Canyon and Boise diversion plants were so heavily utilized for irrigation pumping that they alone could not supply a firm year-around powerload. The diversion plant does not operate in the winter because its water supply is almost entirely dependent upon irrigation releases. The Black Canyon plant had a relatively large surplus of winter energy. As has been indicated above, this winter surplus was utilized to supplement the power supply available for Minidoka project to accomplish water savings there.

The Anderson Ranch powerplant was completed in 1951 and its first generating unit was placed in service in December of 1950. This powerplant is located at an irrigation storage reservoir and was designed to utilize a large part of the irrigation water releases. As a consequence, the plant production is usually at capacity during the irrigation season, but winter water releases are much smaller, due to the necessity of refilling the reservoir. The resulting power production is characterized by maximum generation in the irrigation season and small generation in the winter. As noted previously, the Black Canyon powerplant has surplus power in the winter, so the integration of Boise powerplants, particularly Black Canyon and Anderson Ranch, created a firm power supply on that project. However, in order to effect this integration, the arrangements between Black Canyon and Minidoka powerplants had to be renegotiated. The resulting 1950 contract terminated the 1934 contract. Since there was only one preference customer, the Prairie Power Cooperative, which required firm power from the Boise project and since there was an urgent need for firm power to supply the customers of the Minidoka system, the 1950 contract also provided for integration of the Boise and Minidoka powerplants by means of wheeling over the Idaho Power Co.'s transmission facilities. The additional power thus made available to the Minidoka system provided an adequate source of power for them which, at that time, appeared to be adequate to cover their requirements for several future years.

Also in September 1950 the Palisades project and the American Falls powerplant and the North Side pumping division of the Minidoka project were authorized by the Congress. With these two additional power developments in prospect, it appeared that the requirements of the Minidoka power system could continue to be supplied after the Minidoka and Boise firm power was fully utilized. The construction of the Palisades powerplant proceeded, but funds were not appropriated for the construction of the American Falls powerplant. Great interest was shown in the development of new land by irrigation from deep wells. No one had foreseen the upsurge in ground water pumping which came

about through experimental well drilling on the Snake River plain, in the area north of the original Minidoka project and was stimulated by the Government's development of its North Side pumping division. The resulting increased activities in the communities served by the Minidoka power system and the development of irrigation pumping from wells principally in the area served by the Raft River REA caused a more rapid growth of power requirements on the Minidako power system than had been anticipated. As a result, the power supply available to the Minidoka power system from the Boise and Minidoka projects was overtaken by the loads in 1955. The 1950 contract anticipated such a circumstance and provides that if the loads of the United States take more power and energy than the firm amounts provided by this contract, the revenues payable to the United States by the company are reduced at the rate of 30 cents per kilowatt per month plus 5 mills per kilowatt-hour of such excess use. All indications pointed to a probable loss of revenues from the company in 1956 of substantial magnitude because there was no prospect of completing the Palisades powerplant in time to supply the ever-increasing power requirements of the customers of the Minidoka power system. Many meetings were held with the power distributors in the Minidoka area seeking a solution. The resulting arrangement was an agreement on the part of the power users to pay a surcharge on their power bills in April–October 1956. As finally adjusted, the surcharge amounted to eleven and a fraction percent of their regular power bills. Power from the new Palisades powerplant cent of their regular power bills. Power from the new Palisades powerplant became available in 1957. Since that time, the Federal plants have again had sufficient power for all of the requirements of the firm power customers and the project loads.

PALISADES PROJECT

The Palisades project is located at a reservoir which was constructed to provide supplemental water for irrigation. Like Anderson Ranch, the powerplant was designed to make reasonable use of the high flows of irrigation water during the summer, but the water available for power generation in winter is much smaller. Usually the plant will operate at full capacity during the irrigation season and will produce an average of 16,000 kilowatts during the winter season. Also, like Anderson Ranch, the production capacity of the plant is very much reduced when the reservoir is drawn down for irrigation. The firm power output of this plant has been sold to three neighboring REA cooperatives and the city of Idaho Falls. Seasonal power from Palisades is utilized for the operation of the North Side pumping division, the Michaud Flats project, the Fort Hall project of the Bureau of Indian Affairs, and the Milner Low-Lift Irrigation District, and is used to supplement the firm power available to the Minidoka power system from the Boise project. Nonfirm seasonal energy up to 95 million kilowatt-hours per year, has been sold to the Idaho Power Co.; the Idaho Power Co. and the Utah Power & Light Co. have contracted to purchase the remaining dump energy. Contracts with the two power companies provide for the necessary wheeling to deliver Palisades power to the above loads.

SUMMARY

I have gone to some length in tracing the above history in a brief manner to point out the many steps the Bureau of Reclamation has taken to provide power for the preference customers in southern Idaho as soon as it became available from the plants. This has been accomplished not by suddenly integrating the operation of the plants, but rather by a step-by-step process of integrating each plant into the system as it was constructed. As previously noted the Bureau has had 40 contracts with the utilities in the area since 1911. These contracts are not all in force now, but their previous existence indicates the many arrangements that have been made to keep pace with changing requirements. Some of the contracts involved arrangements in the sole interest of irrigation. However, the Bureau has also made many advantageous adjustments of the contracts to make an equitable distribution of the power for existing requirements of the firm power customers, recognizing of course that it is necessary to meet the project power requirements from these same sources of supply. All of the preference customers in southern Idaho are receiving power from the Bureau of Reclamation. In most cases, their supply is adequate to cover their present load requirements. However, there are several who have exceeded their contract rates of delivery, and there are several more who will overrun their contracts in the near future. In the aggregate, our present esti-

mates indicate that the present firm power supply probably will be adequate to cover the load requirements until 1959 or 1960. If a critical water supply year like 1934 were to reoccur in the next few years, it is expected that the Federal plants would be able to generate sufficient energy to cover all firm requirements, although there is a possibility that there would be a small energy deficiency in the latter part of the irrigation season. However, heavy draft of irrigation water from the Anderson Ranch and Palisades Reservoirs would seriously reduce the power capability of those plants, and it is probable that there would be a serious deficiency of peaking power.

INTEGRATION WITH NORTHWEST POWER POOL

I understand that the committee has already received testimony concerning the recent joint BPA-Bureau study which indicates the possible advantages of integrating the southern Idaho Federal powerplants with the powerplants of the Columbia River system. This opportunity exists because of the diversity of streamflow characteristics of the Snake River and the Columbia River. The critical period for the Snake River is a year like 1934–35. On the Columbia River it is 1936–37. Members of my staff have worked with the Bonneville staff to examine the potentialities of integrating operation of the plants of the two systems. They have concluded that such an integration would have the effect of firming up the southern Idaho plants to the level of production they could expect in a year like 1936–37, which is the critical year for the Northwest Power Pool. This would have the effect of increasing the firm energy capability of the southern Idaho plants by an average of 13,000 kilowatts in the fall and winter period which is locally referred to as the storage control season. Such an integration would require that energy move back and forth between the 2 systems so that the surpluses of 1 would be available for use by the other. Also, since there is a prospective deficiency of peaking power in the southern Idaho system, full integration would necessitate at times the flow of peaking energy from the Columbia River to the Snake River in the irrigation season up to rates of delivery of approximately 85,000 kilowatts.

It is my understanding that the deficiencies in southern Idaho created by integration occur at times when they could be easily supplied from the Columbia River system. The transfers of energy between the two systems would have to be made over the transmission lines of the Idaho Power Co. As an alternate to the above type of integration, I have recently been informed that the Idaho Power Co. has an integration agreement with some other companies in the Northwest Power Pool. The Idaho Power Co. has suggested the possibility of firming up the Bureau's southern Idaho plants in a similar manner. Studies of this proposal have not been completed and, in fact, the proposal has come to me so recently that I have not had any opportunity to determine the benefits the Bureau plants might derive from such integration.

Senator CHURCH. Mr. Nelson, would you indicate the power facilities, the generation facilities that the Government now has in the Bureau system in southern Idaho?

Mr. NELSON. I will be glad to do that, Senator Church. I think, as a matter of convenience, we should refer to the map of the Snake River Basin which is before you.

Senator CHURCH. In this connection, if it is feasible to do so, I believe that the map, an enlargement of which we have in the committee room this morning, ought to be included in the proceedings.

Mr. NELSON. I believe we can furnish you some copies of a very similar map which will be suitable for inclusion in the record.

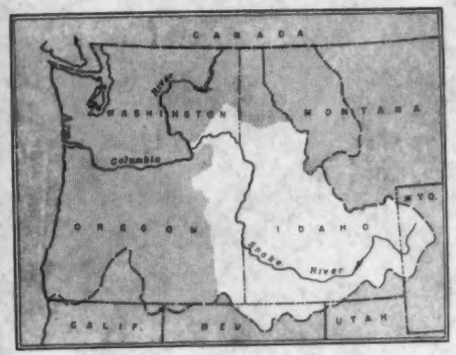
(See folding map opposite this page.)

Mr. NELSON. I might identify the map symbols.

The Snake River is identified as running completely across southern Idaho, arising in Yellowstone Park and going out of Idaho through the Hells Canyon region and finally down into Columbia River.

The green areas represent areas that are under irrigation now.

The yellow areas represent areas that are susceptible of future irrigation development, and the blue areas represent developed reser-



LOCATION MAP

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

SNAKE RIVER BASIN
MAJOR TRANSMISSION LINES

LEGEND

PRIVATE POWER

- Idaho Power
- Utah Power

FEDERAL POWER

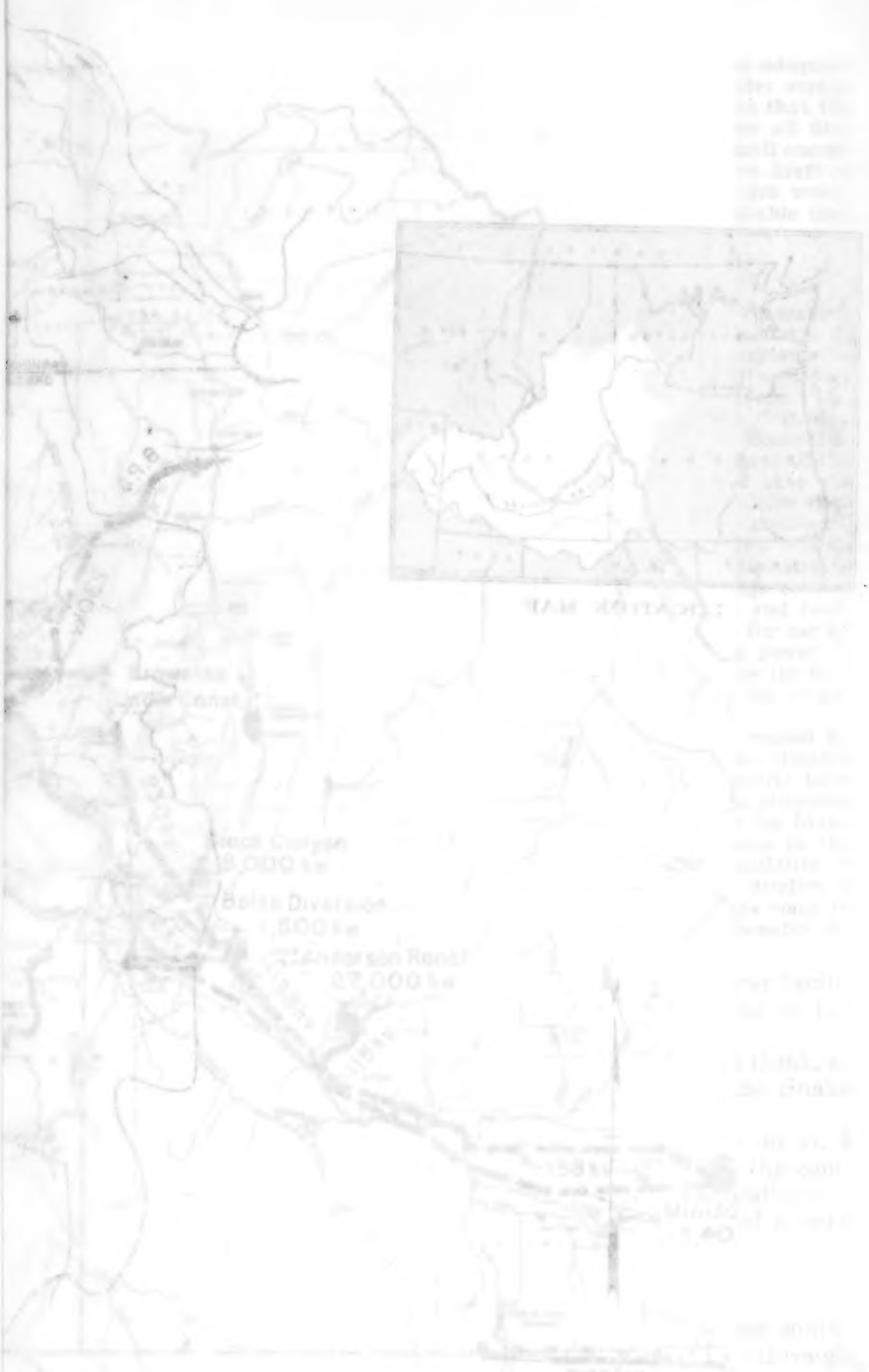
- Existing
- Proposed

B.P.A.
230kv
230kv
Brownlee (Under Const.)
138kv
230kv
Black Canyon 8,000 kw
Boise Diversion 1,500 kw
138kv
Anderson Ranch 27,000 kw
138kv
115kv
138kv
Minidoka 13,400kw
American Falls
161kv
138kv
161kv
138kv
Goshen Sub-Sta.
115kv
115kv
Palisades 114,000kw
Burns Creek Dam & Power Site 90,000 kw
161kv
MONTANA
NEVADA
UTAH
WYOMING
OREGON
IDAHO
WASHINGTON
OREGON

N

0 10 20 30 40 50 60
SCALE OF MILES

26447 O-58 (Face p. 200)



voirs and also, of course, the Snake River, and I think it is very obvious that the entire development of south Idaho is concentrated for its entire length along what is called the Snake River plain.

Getting to the power facilities, we should start with the first one built on the river. As a matter of fact, that is one of the first Federal powerplants built in the West and the first Federal powerplant in the Northwest. That is the Minidoka powerplant near Burley, Idaho, which is a run-of-the-river plant with a present capacity of 13,400 kilowatts, that went on the line originally in 1909.

The next plant to go on the line was way over on the Boise project on the Boise River, a plant built at the Boise diversion dam having a capacity of 1,500 kilowatts, built originally in 1911 to supply construction power for the building of Arrowrock Dam. That plant has been on the line continuously since that time, a very old plant, with lignum vitae bearings.

The next plant to go on the line was built on the Payette River when the Black Canyon diversion dam was constructed in 1927. That provided an opportunity for generation of power in connection with the diversion dam and to provide pumping power for the Black Canyon project and the Owyhee project. That has an installed capacity of 8,000 kilowatts and was completed in 1927.

Those three plants that I have just listed are run-of-the-river plants although they do happen to be located below storage.

The next plant was the Anderson Ranch Dam powerplant which was built along with construction of Anderson Dam and Reservoir, has an installed capacity of 27,000 kilowatts and was completed in 1950.

Senator CHURCH. May I ask in connection with the Anderson Ranch, whether all of the generators have been installed that can be installed?

Mr. NELSON. No. At the time the Anderson Ranch Dam was built there was space in the powerhouse for one additional unit as against the time when it might be possible to use this as a peaking plant rather than a base load plant.

However, with some of the possibilities that are now being investigated for developing the Mountain Home area, it is unlikely that that additional unit will ever be required. But there is opportunity to install that unit.

Senator CHURCH. However, the installation of that unit for the reasons you indicate is not at this time contemplated or advocated by the Bureau?

Mr. NELSON. That is correct. It is not contemplated at the present time.

The final plant is the Palisades powerplant built in connection with the Palisades Dam and Reservoir, 114,000 kilowatts. The first unit went on the line in 1957, and the last unit went on during the last 30 days, so that that plant is operating at full capacity.

I should outline the transmission facilities that are owned by the Bureau of Reclamation in connection with these plants.

The Minidoka plant was built primarily to serve the pumping load during the summer on the Burley and Minidoka projects. However, since it was a run-of-the-river plant, that provided a splendid opportunity to furnish energy during the winter months so that the

use of that was encouraged in that area and a distribution system was actually built in the rural area surrounding Burley so that there is a distribution network to the area shaded in green.

Senator CHURCH. That is a network of transmission lines?

Mr. NELSON. A network of transmission lines.

Senator CHURCH. Are these lines owned by the Bureau?

Mr. NELSON. Yes, not the major transmission lines which are depicted in orange which I will come to later, but the Bureau does have transmission to the Minidoka project area that is owned by the Bureau, transmission lines and substations.

Senator CHURCH. The Minidoka Dam supplies electricity to certain preference customers, does it not, aside from the irrigators?

Mr. NELSON. That is correct.

Senator CHURCH. Did they hook up to the system with lines of their own that reach into the Minidoka Dam itself or do they connect with your network?

Mr. NELSON. No, primarily the Bureau of Reclamation has developed a distribution system to serve that area. However, through the years there have been several individual instances where additional preference customers have built either to the dam or to outlying facilities of the Bureau.

I am referring to the Milner low-lift district.

Then going down the line from the Boise project area the Bureau only owns transmission facilities to connect with the main transmission lines of the utility in the area. In other words, there is a line from Boise diversion dam, a very short distance, to an interconnection; the same applies to Black Canyon. There is a very short stub, possibly a mile or two long, and in the case of Anderson Ranch there is a 115-kilovolt line out to Mountain Home.

In the case of Palisades, since there were no facilities in the area, two 115-kilovolt lines were built from the Palisades powerplant into the Goshen substation which is a point of interconnection with the Utah Power Co. and the Idaho Power Co.

The Goshen substation itself is owned by the utilities. The terminal facilities of that line, however, are owned by the Bureau of Reclamation.

I believe that that covers the transmission facilities owned by the Bureau of Reclamation.

Senator CHURCH. May I ask this question: With respect to the lines that connect the Palisades Dam with the Goshen substation, those lines, I understand, are owned by the Government, but are they presently maintained by the Government or are they maintained under a lease?

Mr. NELSON. No; we have a maintenance contract with the Utah Power Co. whereby the Utah Power Co. maintains the lines. That is simply an operating arrangement. It is not in any manner, shape, or form a lease of facilities. It is just a maintenance agreement.

Senator CHURCH. I see.

Mr. NELSON. If it were to our advantage to maintain it ourselves, we could certainly do that.

Senator CHURCH. Is that a compensatory agreement into which certain payments are made by the Government for the maintenance service given?

Mr. NELSON. Yes; based on the cost of maintenance; that is correct.

Senator CHURCH. Is that compensation made in money or in energy?

Mr. NELSON. It is made in money.

Senator CHURCH. This arrangement, I take it, was made with the Utah Power & Light Co. after the Bureau concluded that it would be less expensive for the Government to enter into such an arrangement than it would be to provide for it on its own?

Mr. NELSON. That is right. It was based on simply a question of cost and the equipment available for maintaining the necessary facilities, trucks, and things of that kind.

In addition to the facilities owned by the Bureau of Reclamation, I have also listed only the backbone transmission lines of 115,000 kilowatts or better which cross south Idaho clear up to the interconnections with the Bonneville Power Administration at La Grande, Oreg.

The Bonneville Power Administration facilities end at La Grande, and there is either in service or under construction a 230 line from La Grande to Baker, and we understand another 230 line from Baker to Brownlee; and then a 230 line from Brownlee on into Boise.

The other line depicted from Baker comes more or less directly to Boise and is 138 kilovolts. It splits into two lines so that predominantly across Boise now we have two 138-kilovolt lines.

You might be interested in the mileages. They might be hard to read. It is 180 miles from La Grande to Boise, 155 miles from Boise to Burley, and another 135 miles from Burley to Goshen, so that it is 335 from La Grande to the service areas of the cooperatives. It is 470 miles from La Grande to Goshen.

I believe that is a bird's-eye view of what we have on that map.

Senator CHURCH. In addition to the dams that you mentioned where there are presently Government generating facilities, the Bureau operates the American Falls Reservoir, does it not?

Mr. NELSON. Yes; the Bureau operates a number of storage reservoirs.

Senator CHURCH. The American Falls Dam was built with pen stocks that were designed to accommodate generation facilities?

Mr. NELSON. That is correct.

Senator CHURCH. But no Government generation facilities have been constructed there?

Mr. NELSON. No, sir.

Senator CHURCH. While we are on that subject, is it not true that when the original bill authorizing construction of Palisades was passed in the Congress it contemplated the construction of generating facilities at the American Falls Dam?

Mr. NELSON. Yes.

Senator CHURCH. And owing to a ceiling that was placed on the construction costs and the increased construction costs that ensued, it has not proven feasible under the framework of that legislation to construct these facilities; is that correct?

Mr. NELSON. I am not sure whether additional legislation would be required or not. We would have to ask the attorney that. I do know that there have been cost increases due to the rising of price indexes so that the cost of the plant at today's prices would be in excess of the ceiling that was written into the authorizing act.

However, there would be no change in scope or contemplated size of the plant as it was originally authorized.

Senator CHURCH. That is what I was trying to say. You have said it better.

Now, I assume at that time that the American Falls provisions were written into the Palisades bill with the approval of the Bureau of Reclamation?

Mr. NELSON. Yes.

Senator CHURCH. So that it was your feeling at that time that the construction of generating facilities by the Government at the American Falls Dam was a worthy project?

Mr. NELSON. Yes.

Senator CHURCH. Do you still feel that it would be a worthy project today?

Mr. NELSON. We have a report indexed to 1956 price levels that demonstrates that the project is financially feasible.

I wish to point out, however, that it is feasible as a source of pumping power for irrigation, because that enables the power costs to be allocated as interest free.

If we were to convert that to a commercial facility, we would have to allocate the power costs as interest bearing under reclamation law at 3 percent.

Senator CHURCH. In other words, if I understand correctly, your position today is that the construction of these facilities at the American Falls Dam would be feasible if the electricity were used for irrigation and pumping purposes?

Mr. NELSON. That is correct.

Senator CHURCH. Because if the electricity were so used the interest factor would not be involved.

Mr. NELSON. That is the major part of the story.

The other part is this: That the capacity of the 30,000-kilowatt plant is largely available during the summer months which coincide with the irrigation season. That is the season of the year that enough water passes the site to satisfy downstream water rights so that the plant can be nearly always operated at a much higher capacity than is possible in the winter.

I believe that in consideration of downstream uses of water in the winter that the maximum available from the proposed American Falls plant itself is something on the order of 3,000 to 4,000 kilowatts. There is a contractual limitation which limits the production of the American Falls plant and the Minidoka plants together to 10,000 kilowatts so as not to spill water past American Falls in the wintertime above that needed to satisfy downstream rights.

Senator CHURCH. Is that based on the 1923 contract with the Idaho Power Co.? Is that the contract to which you refer?

Mr. NELSON. Partly, but that contract has been modified through the years and those provisions are imbedded in the very latest Palisades contracts that are in effect with all of the entities on the river that own space in American Falls Reservoir.

Senator CHURCH. If generating facilities were constructed by the Government at the American Falls Dam and if the electricity were used there for seasonal irrigational purposes, would the availability of that electricity tend to reduce the requirements that now fall to

other Government plants so that additional power might be available from other Government plants to service commercial customers or preference customers?

Mr. NELSON. I would say that if a supply of pumping power were available from the American Falls to the adjoining Minidoka North Side and Michaud areas which are now, incidentally, on the line, that by displacement there would be released an equivalent amount from Palisades production.

Senator CHURCH. From the Palisades production which could be used for sale to cooperatives and other preference customers?

Mr. NELSON. Conceivably so, to the extent that it would be firm power.

Senator CHURCH. But some of it would be firm power, would it not?

Mr. NELSON. Yes, that is correct.

Senator CHURCH. Your opening explanation, Mr. Nelson, of the Government dams in southern Idaho and the Government transmission lines that now exist in southern Idaho, would indicate that there is no appreciable public transmission systems in the southern part of Idaho and that in order to get power generated at Government plants to the service areas it is necessary for the Bureau to rely upon the use of transmission lines belonging to private utilities companies.

Mr. NELSON. That is correct.

Senator CHURCH. To do this it is my understanding that the Bureau has entered into a series of wheeling contracts with the companies owning these transmission lines, the Utah Power & Light Co. and the Idaho Power & Light Co.

Mr. NELSON. That is correct.

Senator CHURCH. In order to operate these plants at optimum capacity to efficiently use the water available, is it not necessary to integrate the operation of the system so that the dams can be used together, so to speak, in such a way as to achieve the maximum results?

Mr. NELSON. That is correct, certainly.

Senator CHURCH. And without integration if each dam were to be operated as a separate entity without regard to other existing dams a lesser amount of power would be realized than an integrated system would produce?

Mr. NELSON. That is correct.

Senator CHURCH. At the present time, are these Government dams integrated to the maximum potential?

Mr. NELSON. Yes.

Senator CHURCH. I am speaking of within your system in southern Idaho.

Mr. NELSON. Yes, sir. Our engineers feel that we have accomplished maximum integration and the generalized statement which I presented went into that.

I have, however, a very interesting chart which I would like to discuss with you. I have extra copies of this chart.

I realize that we are getting into quite a complicated subject but I believe, by a very short session with this chart, we can demonstrate just how the operating characteristics of our system, the dams that we have, do lend themselves to integration. Of course, our integration characteristics change as another plant is added, but I will start with

the chart before you, and on the extreme upper left hand side you will see the generation available from the Black Canyon Dam.

Senator CHURCH. At this point, Mr. Nelson, let me say that this chart ought to be made a part of the record of the proceedings in order that it can be related to the testimony.

Mr. NELSON. I believe that this chart can be drawn in such a way that it can be duplicated. This happens to be a color chart [1] to bring out some of these characteristics.

I should point out, to begin with, that this chart is based upon generation in the critical year which, for the Snake River system, is 1934 and 1935. In other years, of course, there will be higher generations and different shapes of some of these. This is based on the critical year.

On the upper left-hand side the top line is the actual generation using flows that pass the Black Canyon site and the areas in green which are shaded at the top are generations required to serve project loads, namely, the pumping load of the project itself.

The area in blue is surplus energy distributed over the months which you can read at the bottom of the chart. You will notice the chart starts with July on the left and runs through to June on the right, so that the center of the chart, in essence, would be the winter months. The two ends of the chart would be the summer months.

You will see there, then, that the project requirements are all concentrated during the irrigation season, namely, July, August, September, October, and then a small amount during the winter months—that is for the operation of quarters and so on—and then finally picking up again in March, April, May, and June.

There is a red part on the chart below the line on the extreme left which indicates that right now in the critical year we have a deficiency. Black Canyon cannot supply its own load at that time. We would have to take care of that in some manner.

The significant part of the chart for the Black Canyon plant is that all during the winter months from September on we have a surplus marked by blue. That is confined pretty much to the nonirrigation season.

Senator CHURCH. May I ask before we drop to the next chart, how you would make up for this deficiency should it occur in a year where the streamflow would be light?

Mr. NELSON. We have a provision in our wheeling contracts that when that time comes we would be allowed to purchase that and the price would be determined at that time based upon the actual costs of obtaining the energy depending on where it came from.

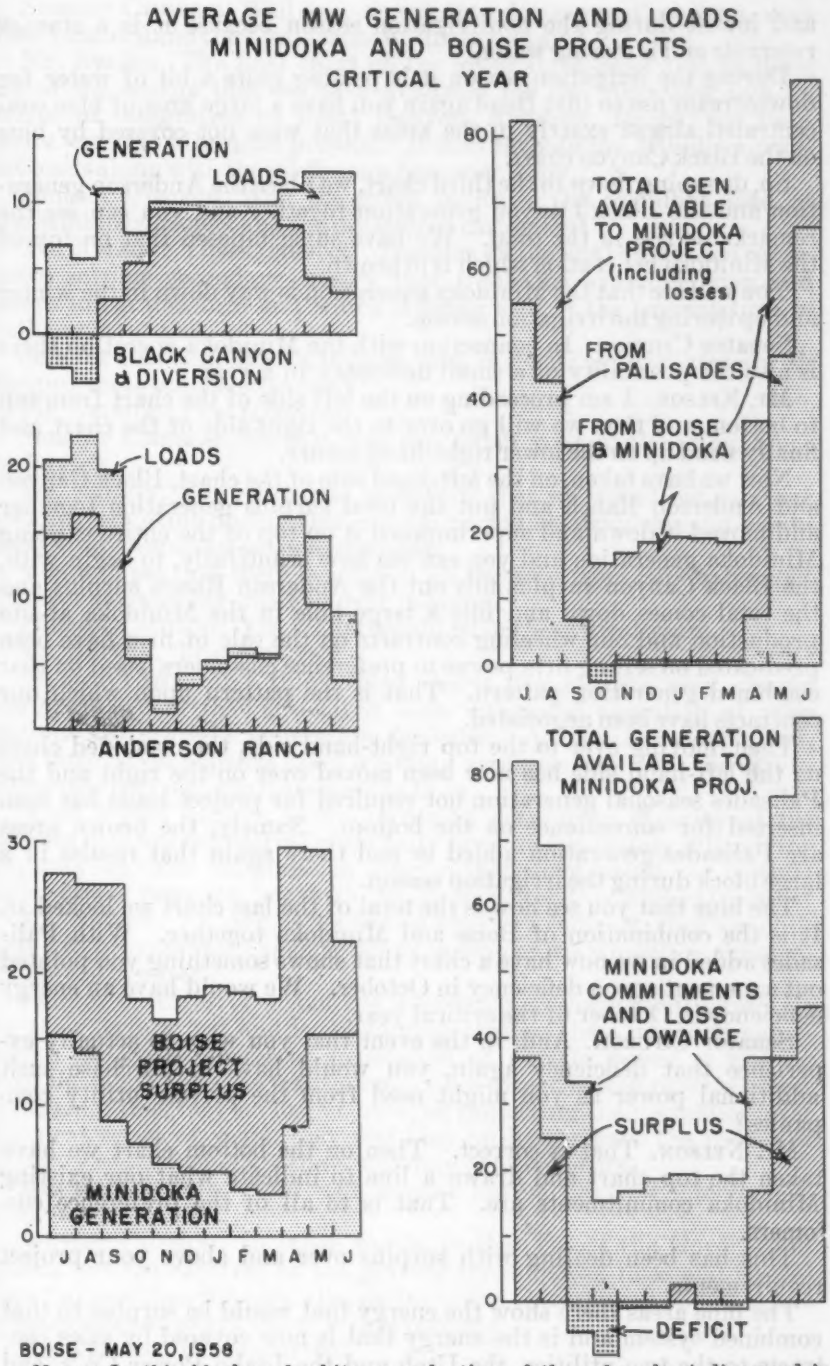
Senator CHURCH. When you say you would have the right to purchase it, you would have the right, say, to purchase it from the Idaho Power Co.?

Mr. NELSON. That is correct.

Going down to the next chart below, that shows the at-site generation of Anderson Ranch Dam if it were considered alone.

You will see the reverse of the Black Canyon chart. You will see that Anderson Ranch generation is higher during the irrigation season

[1] See illustration opposite and footnote explaining crosshatching to substitute for colors.



BOISE - MAY 20, 1958

NOTE.—In this black and white reproduction of the color chart discussed in accompanying testimony, the color blue has been replaced with slanted line cross-hatching. The color green has been replaced with fine dots. The color brown in the lower left and upper right charts is replaced by fine dots. The color red in all charts is replaced with heavy dots.

and lowest during the nonirrigation season because it is a storage reservoir and is storing water.

During the irrigation season it is passing quite a bit of water for downstream use so that there again you have a large area of blue concentrated almost exactly in the areas that were not covered by blue on the Black Canyon chart.

So, dropping down to the third chart, we place the Anderson generation and the Black Canyon generation together and you can see the remarkable rise in the total. We have superimposed that on top of the Minidoka generation which is in brown.

You will see that the Minidoka generation is way down in the winter and up during the irrigation season.

Senator CHURCH. In connection with the Minidoka operation there is also the possibility of a small deficiency in a year.

Mr. NELSON. I am proceeding on the left side of the chart from top to bottom and then we will go over to the right side of the chart and finally wind up on the lower right-hand corner.

Now we have taken, on the left-hand side of the chart, Black Canyon and Anderson Ranch and put the total surplus generation together and moved it down and superimposed it on top of the entire existing Minidoka generation and you can see how beautifully, to begin with, the Black Canyon surplus fills out the Anderson Ranch surplus and the total comes down and fills a large hole in the Minidoka at-site production and our wheeling contracts on the sale of firm have been predicated on selling firm power to preference customers based on that combined generation pattern. That is the pattern upon which our contracts have been negotiated.

Then, moving over to the top right-hand side, the combined chart on the left-hand side has now been moved over on the right and the Palisades seasonal generation not required for project loads has been inserted for convenience on the bottom. Namely, the brown areas are Palisades generation added in and there again that results in a large block during the irrigation season.

The blue that you see now is the total of the last chart we looked at. It is the combination of Boise and Minidoka together. With Palisades added in we now have a chart that shows something you pointed out a moment ago, a deficiency in October. We would have an energy deficiency in October of the critical year.

Senator CHURCH. And, in the event that you were to actually experience that deficiency again, you would have to purchase such additional power as you might need from the private utility companies?

Mr. NELSON. That is correct. Then on the bottom chart we have taken the top chart and drawn a line to indicate what our existing Minidoka commitments are. That is to all of the preference customers.

This has been dealing with surplus over and above your project requirements.

The blue areas there show the energy that would be surplus to that combined system and is the energy that is now covered by sales contracts to the two utilities, the Utah and the Idaho Power Co.'s, and all of the green that you see is the energy that is covered by sales contracts to the preference customers.

Senator CHURCH. Will you repeat that for me so that I am sure that I understand the significance of this last chart?

Mr. NELSON. The final chart on the lower right-hand side includes all of the energy that we have available for the Minidoka area by virtue of integration of Black Canyon, Anderson Ranch, the Palisades with the Minidoka project. It does include the Minidoka project loads along with the preference customer loads.

Senator CHURCH. And the green indicates the combined load of the Minidoka project and the preference customers?

Mr. NELSON. That is correct. The blue on the final chart then represents surplus secondary energy that would be available over and above integrated firm and which is being sold at the present time to utilities in the area.

Senator CHURCH. And it is being sold, is it not, under contract with the project to other companies?

Mr. NELSON. That is correct.

Senator CHURCH. So that you can finish your explanation, what is the red?

Mr. NELSON. The red would be deficits that we would incur in our own project loads during that critical period at Minidoka and would need to be covered by outside purchases.

You will see that there is a deficit all the way from September and October and another small amount in March.

Senator CHURCH. Yes. That would be in the critical year.

Mr. NELSON. That is correct.

Senator CHURCH. I think these charts demonstrate very clearly the great benefit that is derived from integrated operation of your various Government generation facilities. As you have explained, this integration depends upon wheeling arrangements with the utility companes that own the transmission lines.

What would happen if the increased generating capacity of the private utilities themselves more fully or more completely utilized the capacity on their transmission lines so that there would not be sufficient excess capacity left with which to wheel this Federal power?

Mr. NELSON. As long as we have a two-way contract, they are obligated to provide that capacity for us as long as the wheeeling arrangements are in effect.

Senator CHURCH. Yes, but the wheeling agreements will terminate by their own terms; and let us suppose that, as these wheeling agreements terminate, increased generation of private power is making such demands upon the transmission lines owned by the private power companies that they no longer have, or projecting their situation over the next series of years, they feel they no longer have the necessary capacity to accommodate these wheeling arrangements.

Mr. NELSON. We would still have to have a physical interconnection.

Senator CHURCH. In other words, to that extent the Government plants are the captives of the private transmission lines and should that happen then the only alternative to the Government would be the construction of public lines; is that correct?

Mr. NELSON. That is correct.

Senator CHURCH. To your knowledge, do these transmission lines belonging to the Idaho Power Co. and the Utah Power & Light Co. extend over portions of the public domain in southern Idaho?

Mr. NELSON. Yes; quite extensively.

Senator CHURCH. And was it not true until recent years that the Interior Department of the Government of the United States had a regulation to the effect that when a transmission line did extend over the public domain that one of the conditions of granting the easement to the utility company would be that the utility company would make such excess capacity as might be available on that line available for the wheeling of public power?

Mr. NELSON. I am generally familiar with the fact that there were provisions of that kind. I would prefer to ask Mr. Weinberg.

Senator CHURCH. Mr. Weinberg, you could state that better than I have stated it.

Mr. WEINBERG. There was for a period of some years, Senator Church, in the Department's regulations for the issuance of permits by the Bureau of Land Management a requirement calling for the making of surplus capacity available for wheeling.

Senator CHURCH. When was that regulation abandoned?

Mr. WEINBERG. I believe it was changed in 1954 or perhaps 1955 or 1953. I am not certain.

Senator CHURCH. I bring this point up not because it falls within the jurisdiction of the Bureau but rather because I think that it is relevant at this juncture in the discussion because here we have a situation in southern Idaho where the public has made an enormous investment in generating facilities, where these facilities can be used to the optimum advantage only if they are integrated and where integration in turn depends upon the willingness of private utility companies to enter into and sustain wheeling agreements; and yet these very lines cross public lands, and it seems to me so clearly in the public interest, in such a situation that the Government ought to require as a condition of easement the requirement that the lines be made available for the wheeling of public power to the extent that excess capacity is.

I think that is a very reasonable requirement and I am at a loss to understand why it was ever abandoned by the Government.

For purposes of the record, I would like to include here the regulation which we have been discussing as it existed prior to August 11, 1954 and a staff memorandum on the situation as to the regulation today.

(The material referred to follows:)

MISCELLANEOUS AMENDMENTS TO GENERAL REGULATIONS APPLICABLE TO RIGHTS-OF-WAY OTHER THAN FOR RAILROAD PURPOSES AND FOR LOGGING ROADS ON THE OREGON AND CALIFORNIA AND COOS BAY REVESTED LANDS

Code of Federal Regulations, Title 43, Part 244

Federal Register, vol. 17, pp. 5897–5904 Provisions before 1954 Amendments

* * * * * * *

9. § 244.44 Terms and conditions. * * *

[(c) That the transmission line for which the right-of-way is authorized shall not be used for the transmission of any power generated otherwise than by and at the connecting generating plant until the regional administrator shall have given written authority for such use and then only on the terms and conditions expressed in such written authority.

[(d) To allow the Department of the Interior, in the case of a right-of-way applied for on or after October 14, 1948, and covering a right-of-way for an electrical transmission line having a nominal voltage of 33 kv or more, to utilize for

the transmission of electrical power any surplus capacity of the line in excess of the capacity needed by the holder of the right-of-way (subsequently referred to in this paragraph as "holder") for the transmission of electrical power in connection with the holder's operations, or to increase the capacity of the line at the Department's expense and to utilize the increased capacity for the transmission of electrical power. Utilization by the Department of surplus or increased capacity shall be subject to the following terms and conditions:

[(1) When the Department desires to utilize surplus capacity thought to exist in a line, notification will be given to the holder, and the holder shall furnish to the Department within 30 days a certificate stating whether the line has any surplus capacity not needed by the holder for the transmission of electrical power in connection with the holder's operations, and, if so, the extent of such surplus capacity.

[(2) In order to utilize any surplus capacity certified by the holder to be available, or any increased capacity provided by the Department at its own expense, the Department may interconnect its transmission faciilties with the holder's line in a manner conformable to approved standards of practice for the interconnection of transmission circuits.

[(3) The expense of interconnection will be borne by the Department, and the Department will at all times provide and maintain adequate switching, relaying, and protective equipment so as to insure that the normal and efficient operation of the holder's line will not be impaired.

[(4) After any interconnection is completed, the holder shall operate and maintain his line in good condition; and, except in emergencies, shall maintain in a closed position all connections under the holder's control between the holder's line and the interconnecting facilities provided by the Department.

[(5) The interconnected power systems of the Department and the holder will be operated in parallel.

[(6) The transmission of electrical power by the Department over the holder's line will be effected in such manner and quantity as will not interfere unreasonably with the holder's use and operation of the line in accordance with the holder's normal operating standards, except that the Department shall have the exclusive right to utilize any increased capacity of the line which has been provided at the Department's expense.

[(7) The holder will not be obligated to allow the transmission over his line by the Department of electrical power to any person receiving service from the holder on the date of the filing of the application for a right-of-way, other than persons entitled to statutory preference in connection with the distribution and sale of electrical power by the Department.

[(8) The Department will pay to the holder an equitable share of the total monthly cost of maintaining and operating the part of the holder's line utilized by the Department for the transmission of electrical power, the payment to to be an amount in dollars representing the same proportion of the total monthly operation and maintenance cost of such part of the lines as the maximum amount in kilowatts of the power transmitted on a scheduled basis by the Department over the holder's line during the month bears to the total capacity in kilowatts of that part of the line. The total monthly cost may include interest and amortization, in accordance with the system of accounts prescribed by the Federal Power Commission, on the holder's net total investment (exclusive of any investment by the Department) in the part of the line utilized by the Department.

[(9) If, at any time subsequent to a certification by the holder that surplus capacity is available for utilization by the Department, the holder needs for the transmission of electrical power in connection with its operations the whole or any part of the capacity of the line therefore certified as being surplus to its needs, the holder may modify or revoke the previous certification by giving the Secretary of the Interior 30 months' notice, in advance, of the holder's intention in this respect. After the revocation of a certificate, the Department's utilization of the particular line will be limited to the increased capacity, if any, provided by the Department at its expense.

[(10) If, during the existence of the right-of-way, the holder desires reciprocal accommodations for the transmission of electrical power over the interconnecting system of the Department to its line, such reciprocal accommodations will be accorded under terms and conditions similar to those prescribed in this paragraph with respect to the transmission by the Department of electrical power over the holder's line.

[(11) The terms and conditions prescribed in this paragraph may be modified at any time by means of a supplemental agreement neogtiated between the holder and the Secretary of the Interior or his designee.]

STAFF NOTE

Revised regulations printed in the Federal Register, vol. 19, pp. 5178–5179, promulgating Provisions as Amended by the Department of Interior in August 1954, omit "pgh. 224.44. Terms and Conditions" in its entirety.

The Thirteenth Intermediate Report of the House of Representatives Committee on Government Operations published March 28, 1956, contains full documentation of the inception and adoption of this alteration.

Mr. WEINBERG. I might note, Mr. Chairman, that at least one of those lines shown in red there I think comes under the Federal Power Commission license for the Bliss project in which the license contains a wheeling requirement.

Senator CHURCH. Returning to the subject of integration, I understand, Mr. Nelson, that it is the feeling of your engineers that under the existing wheeling contracts that you have with the private utility companies, that full integration of the existing system has been achieved.

Mr. NELSON. That is correct; full integration of the Bureau plants in southern Idaho.

Senator CHURCH. May I ask this question? On this same river system there are a number of private utility dams and generating facilities, are there not, that are not shown on this map?

Mr. NELSON. That is correct.

Senator CHURCH. And these facilities would also profit from integration with the Government facilities, would they not, so that the total amount of power produced by all dams would be increased if the two systems were hydraulically coordinated?

Mr. NELSON. I think I would have to say to that that the characteristics of the flow on the Snake River, treating the Snake River as a system separate from the Columbia River, is very similar. I do not think it is possible to achieve any gain as between integrating the Federal and private plants. The major gain is possible by integrating both with the Columbia River.

Senator CHURCH. Presently is the Federal system integrated with the private system in southern Idaho?

Mr. NELSON. I will ask Mr. Martz to consult with me on that.

Mr. MARTZ. The thought I had was that there is a provision in one of our contracts, which we call the 1950 contract, with the Idaho Power Co., which permits short-time use of storage capacity of the Anderson Ranch Reservoir. I think of that as utilizing daily storages to regulate power for loads and there is probably some storage that is carried over perhaps a month but that is only accomplished when the reservoir can be so used without interfering in any way with irrigation operations.

Senator CHURCH. Then with the possible exception of the operation of the Anderson Ranch Dam, there is, I take it, no general integration of the public system with the private system in southern Idaho.

Mr. MARTZ. I would say as it exists now there really is no opportunity to do that because the Federal plants are operated on water

that is released for irrigation or stored for irrigation so that the powerplant operators do not determine the amounts of water available to the Federal powerplants.

Senator CHURCH. I understand that the primary purpose of the Government dams that we are talking about is irrigation.

Mr. MARTZ. Yes.

Senator CHURCH. But, subject to the first requirements of irrigation, has any study ever been undertaken to determine whether the Federal system could be operated, first, within the framework of the irrigation requirements, but apart from that has a study ever been undertaken to determine what benefits might flow from coordinating the remaining operation of these Government dams with the private dams so that the total product or the total output of electricity might be enhanced?

Mr. MARTZ. That was the thought I was attempting to develop, Senator.

Senator CHURCH. I was wondering if there was that possibility there and whether any studies had been made of it.

Mr. MARTZ. What I wanted to point out was that the Federal plants are subject to irrigation operations. The Idaho Power Co. plants are run-of-river plants so that the thing that is needed is storage control somewhere in order to effect the integration. Otherwise all you do is add them together and up until now the Idaho Power Co. has had very little storage in their system so they have to take the power as it comes.

Senator CHURCH. And such storage as they will now have will be downstream in the Middle Snake?

Mr. MARTZ. Brownlee.

Senator CHURCH. In other words, the nature of the two systems is such as to make coordination very difficult.

Mr. MARTZ. It does not lend itself to coordination other than just adding one to another.

Mr. NELSON. It is difficult to say that there is gain to be had because both systems are confronted with the same problems; namely, summer peak and the same critical year for both systems.

Senator DWORSHAK. Mr. Nelson, can you tell us what relationship the Northwest Power Pool has with the interchange from Montana southward to Utah operated by the three private utilities, I think Utah Power, Idaho Power, and Montana Power? Is there not some exchange of power in that system?

Mr. NELSON. Yes, there is an interconnection from Anaconda to Grace, which comes down south and connects with the Utah system at Goshen.

Senator DWORSHAK. Is that a two-way exchange so that when there is a surplus of power generated by the private utilities in Montana and eastern Idaho and northern Utah it can be made available for use in the Northwest Power Pool and conversely that when there is a shortage of power in the area served by the private utilities Bonneville power can be made available?

Mr. NELSON. I am under the impression that that is a rather small capacity line. I do not know how much moves.

I understand some does move in both directions.

Mr. Martz, do you have any information from your attendance at power-pool meetings?

Senator DWORSHAK. Probably Mr. Campbell can enlighten us.

Mr. CAMPBELL. In the past, Senator Dworshak, there has been a reversal of flow almost daily, depending on the time of the year that you are looking at, where power would flow south in one period of the day and reverse, say, at nighttime and flow back the other way. That is a three-company tie.

The Montana Power Co. owns the line from Anaconda to the Montana border.

The Idaho Power Co. owns that portion of the line from the Idaho border to Goshen, and the Utah Co. owns the southern section of it from Goshen into Grace.

Actually, power can move in either direction in limited amounts over that tieline.

Senator DWORSHAK. Do you know whether in the past operation of this arrangement power generated by these three private utilities has been made available to the Northwest Power Pool in a larger proportion than power from the pool has been made available to the utilities?

Mr. CAMPBELL. Without going into the records, Senator, I cannot answer you one way or the other as to which way the surplus has gone.

Senator DWORSHAK. There has been a very active integration?

Mr. CAMPBELL. Right.

Senator CHURCH. I think that that is helpful to know because it does indicate that there is at least some power flow back and forth between the private systems in southeastern Idaho and Utah and the public systems in northwestern Montana, all of which is a part of a system that carries over into Washington and Oregon. This is all part of one pool and there is some of the power moving great distances, clear into eastern Idaho and Utah and back in the other direction.

Last week, Mr. Nelson, in pursuing the question of the benefits to be derived from integration, Dr. Pearl and other staff members of the Bonneville Power Administration were here and testified. They referred to a study that had recently been completed relating to the benefits that would be realized from integrating the Government system in Oregon and Washington administered by the Bonneville Power Administration with the Government system in southern Idaho administered by the Bureau of Reclamation, and I am sure you are familiar with this study.

Mr. NELSON. That is correct.

Senator CHURCH. To give you a little background information as to what transpired last week, Dr. Pearl testified, as did Assistant Secretary of the Interior Aandahl, that on the basis of this study they felt that the public interest would certainly be served through integrating the two systems and that at least 13,000 kilowatts of additional firm power could be realized through the integration without the construction of any additional dams or facilities in southern Idaho or elsewhere.

I would like to know what your views are with respect to the study and with respect to the general question of integrating the Government system in southern Idaho with the Government system in Oregon and Washington.

Mr. NELSON. Mr. Chairman, I can advise you that our engineers participated with the Bonneville Power Administration staff in working up that study. We agreed completely. We were a party to the study and we agreed also that there is the possibility of gaining that much firm power through integrating the two river systems. That is what is involved.

The critical year on the Columbia River system was 1936–37. By integrating the two systems, the Columbia River system would have both the energy and the peak capacity to make up the deficiencies that would occur during the 1934–35 year on the Snake River system which now limits our sales capabilities and in turn the Snake River system would contribute to the Columbia River system during its critical year which is not critical on the Snake River, so that the advantage is there, we agree completely.

Senator CHURCH. The advantage would be mutual?

Mr. NELSON. That is correct.

Senator CHURCH. You are in agreement with the results of the study.

I want to say for the record here that I am in complete agreement, too, personally, and feel that there is a genuine economic waste involved if we do not obtain the maximum amount of electricity from the public investment and I am particularly interested in it in view of the problem faced by the cooperatives in southern Idaho that appear to be confronted with a growing power shortage.

This seems to me to afford a solution that would require the construction of no additional facilities and that would meet the needs of these co-ops for several years to come.

In order to achieve this integration it will be necessary, will it not, to enter into a wheeling agreement with the Idaho Power Co. that owns the transmission lines connecting the two systems together?

Mr. NELSON. Yes, we will need some kind of agreement to effect that coordination.

Senator CHURCH. Would that coordination be achieved by virtue of the use of excess capacity on the Idaho Power Co.'s newly constructed line between LaGrande and Baker?

Mr. NELSON. It could be achieved by actual physical transfer of energy both ways or it could be achieved by displacement. That is, Bonneville in effect would serve Idaho Power load close to the point of interconnection and Idaho Power in turn would make an equivalent amount available close to the point of interconnection with the Bureau. Either way the end result is the same.

Senator CHURCH. Have you entered into negotiations with the Idaho Power Co., looking toward such an agreement?

Mr. NELSON. Yes, we have been discussing that problem since the results of a study became available some time in February.

Senator CHURCH. As you may know, the Idaho Power Co. has declined to appear or participate in these hearings so that I would appreciate knowing whether you expect that a satisfactory agreement can be entered into on the basis of the negotiations that have thus far ensued.

Mr. NELSON. Certainly we do expect that.

Senator CHURCH. Has the Idaho Power Co. generally indicated to you a willingness to come to terms or do you see difficulties? I just

want to get some idea as to the likelihood that such an agreement can be entered into.

Mr. NELSON. I would have to express that in this way: The company has expressed a general willingness to deal with the problem. They have not got down to details with us on it, using the reason that until they have perfected the details of their integration of their system with the Columbia River system, they are not in the position to, in turn, deal with us on our problem. In other words, apparently the solution of our problem is dependent upon the outcome of the company's negotiations with Bonneville and/or with other members of the Northwest Power Pool on integrating the company systems.

Senator CHURCH. If the Department of the Interior were to reinstate the regulation that existed until 1954 to which we have previously referred, and I state this as just a hypothesis, would that, in your opinion, be helpful to you in terms of strengthening your bargaining position with the company?

Mr. NELSON. It possibly would. I believe the major elements that we are going to have to price out will be the physical amounts of energy that move, and the time that they move.

For instance, it is not just 13,000 kilowatts. I think Dr. Pearl adequately brought out that there are times when as much as 84,000 kilowatts need to move over a short period of time so that those factors are going to loom very large in arriving at the price for that service.

Senator CHURCH. The testimony we had last week from the Idaho cooperatives indicated that inasmuch as 13,000 additional kilowatts would be made available in Idaho that their problem would be solved for several years to come.

They also testified with respect to the average cost of power to them which they said was 5.5 mills and the price of power quoted to them for their excess needs if they must procure it from private utility companies which they said would run anywhere from 9 to 13 mills.

With respect to the present average cost of 5.5 mills, that cost includes the wheeling costs charged by the private utility companies?

Mr. NELSON. That is correct.

Senator CHURCH. Could you give me a general idea of what these costs come to? I realize that they differ from line to line, but just give me an approximation so that we can generally evaluate what this adds to the cost of electricity.

Mr. NELSON. Yes, I can. I can give you the actual wheeling costs that we now have for the several delivery points that we have.

Perhaps you would like to have the map that I have prepared here as a part of the record or perhaps I could take the material from this map and put it in tabular form, but in general it runs like this, and these rates, I might add, are based also on the capacity of the transmission line over which the wheeling is accomplished.

In general, the larger the size of the line the lower, of course, is the wheeling cost.

Our wheeling cost over the primary Idaho Power system, that is 161 kilovolts and 138 kilovolts from the Palisades down to American Falls to North Side and to Minidoka, on the 138-kilovolt line, is 1.12 mills.

Now, the .12 mills is a tax component which is subject to refund for irrigation use from the State of Idaho so that that net figure then becomes approximately 1 mill for that service.

For energy moving out into the distribution areas at a lower voltage, for instance, stepping down to 34.5 kilovolts, the total including the 1 mill becomes 2.04 mills. When we get down to distribution voltage of 12.5 kilovolts that becomes 3.04 mills and the Bureau rate structure in general absorbs 1 mill wheeling charge.

For movements from the Boise project eastward the rate is a mill and a half east of Glenns Ferry, as I recollect, and on the other side, west of Glenns Ferry, it is 1 mill.

I will give you also some figures that prevail in the Boise area. For instance, we wheel all over the Owyhee project and the figure there is 1 mill to such places as the Gem pumping plant to Ontario-Nyssa, and so on.

We have no preference customers there except one. That is the cooperative at Fairfield, Idaho. They come all the way into Anderson Ranch so there is no wheeling charge.

As a final comment, I might say that we feel that our wheeling charges are reasonable.

At the time they were negotiated we, for purposes of our own calculations, determined not only what the prevailing rates were elsewhere but what our costs would be if we were providing the equivalent service.

Now, when I checked yesterday Dr. Pearl's testimony on the wheeling rates that have been made available to the public bodies in the Columbia River Basin, I find that our rates are almost exactly comparable. I think that we calculated for the size of lines we have that the rate there was something like 2 and a fraction mills for 200 miles. We have 1 mill for something over a hundred miles.

Senator CHURCH. I realize that you cannot give me an exact answer to this question until you have all of the data available but do you feel, generally, that it may prove possible to negotiate a wheeling agreement that will connect the two Government systems using the La Grande-Baker tie at somewhat comparable wheeling rates?

Mr. NELSON. The distance is greater. We feel that we will shoot for trying to get that additional amount down within our existing rate structure.

Senator CHURCH. Within your existing rate structure.

Has the Idaho Power Co. indicated as yet what its attitude may be with respect to the rate that they may ask?

Mr. NELSON. No. As I indicated earlier, I think in the terms of the integration arrangement that they finally work out, they have to bring a much larger amount over for their own system, so I believe that our part of that will depend on the kind of agreement that they work out.

Senator CHURCH. Turning then to the next major question that we dealt with in our hearings last week, the co-ops presented testimony through their consulting engineers and also submitted for the record a study that they had made on the capacity of the Government system in southern Idaho based on which they contended that the Bureau of Reclamation could supply them with substantial additional quantities of power and based on which they also protested the present contracts between the Bureau of Reclamation and the private utility companies.

First of all, I would like to ask, Mr. Nelson, if you have read this testimony and if you or the members of your staff have reviewed this study on which it is based?

Mr. NELSON. Mr. Chairman, we have read the testimony. We have not had the privilege of receiving a copy of the engineers' report. I might add that.

Senator CHURCH. If that is so you are at a disadvantage to which we do not want to put you because I believe the report itself has been included in the record of the proceedings.

Mr. NELSON. We received only last week a copy of a petition which was sent to the Secretary of the Interior that included several charts from the report. I would like to make this general observation that in the preparation of this report the group sent their consulting engineers to our office and we were very glad to have them come. We have a very small staff. In fact, I only have six men in my power staff to advise me on all our power operations and maintenance for the whole Northwest. We are, however, glad to make available all of our basic information. It is not always possible for us to convert our data into the form that might be desired by somebody else but none the less I chatted very pleasantly with the gentleman and, at that time, I said that I would like to receive a copy of the completed report. Well, cooperation is a kind of two-way street, and up to now I have not received a copy of the report.

Senator CHURCH. May I inquire whether or not the full report has been included in the record of the proceedings?

It is my remembrance that the full report has.

Mr. CARVER. Yes.

Senator CHURCH. As soon as the record of the proceedings is printed, you will, of course, have this data furnished.

Mr. NELSON. As far as engineers are concerned, the answers that we come up with should be in agreement if our basic assumptions are in agreement.

If our basic assumptions are not in agreement, then, of course, our answers are going to differ, but let me say that the charts that I have seen that were attached to the petition that was sent to the Secretary, which I think come from the report, appear to be technically correct.

As far as we can determine, we think we can check the representation of our loads and resources which the exhibits say came from our records.

Now then, going on from there, you get into a question of assumptions. The statement was made in the testimony that we should be able to increase our sales by 15,000 kilowatts.

Senator CHURCH. If I remember correctly, the testimony was that, based on their studies, the Bureau ought to be able to sell them 15,000 additional kilowatts of power in all but 1 of 22 years.

Mr. NELSON. That is what I want to get up to. That brings us into a problem that we would like to mention from our point of view.

I think the testimony then did admit that there would be 1 year in which the energy would not be there. I hope the testimony also reflected the fact that there would be also a series of years in which we would have a rather serious peaking deficiency. In other words, there would be not only energy shortage in the 1 year of 22 but there would be a string of peaking deficiencies in other years.

We have a chart that shows the years in which those peaking deficiencies would be incurred.

Senator CHURCH. Can you explain for purposes of the record what the significance of a peaking deficiency would be as far as the operation of your system is concerned?

Mr. NELSON. I will ask Mr. Martz now to take the table and do just that and also explain how many of those peaking deficiencies there will be.

Mr. MARTZ. We have plotted chronologically the years 1928 through 1948.

Senator CHURCH. May I say at this point that this chart will be made a part of the record of the proceedings.

(The charts referred to were unsuitable for reproduction and were subsequently reduced to tabular format. They are self-explanatory. The charts are on file with the committee for reference purposes. The tables are as follows:)

Estimated USBR southern Idaho peak deficiencies using 1920–51 water conditions

[Megawatts]

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	Deficiencies with loads based on 1934–35 critical year											
1931								49	7	2		
1932				26				18				
1933				16				39				
1934								10	27	16		
1935				23				3	17	10		
1936				17								
1937				16				19				
1938				16								
1941				16				7				
1942				16								
	Deficiencies with loads based on 1936–37 critical year (with winter shaping)											
1928							6	8	4	1		
1929							6	8	24	22		
1930							6	33	15	20		
1931				1			26	84	44	33	3	5
1932	7	9	9	58	34	36	4	62	25	22		
1933				48	34		6	83	32	22		
1934				21	14	29	29	54	64	44	1	2
1935	5	8	12	55	34		6	47	54	38	1	4
1936	8	12	15	49			6	24		22		
1937				48			6	63	24	22		
1938				48			4	8		22		
1939							6	11	31	22		
1940				28			6	37	19	22		
1941				48	24		6	51	11	22		
1942				48	16		6	8		17		
1943					20	5						
1944									21	17		
1945									15			
1946								5	25	9		
1947									14			
1948								3	23			

Source: USBR, Boise, June 11, 1958.

Estimated USBR southern Idaho energy deficiencies using 1928–51 water conditions

[Average megawatts]

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	Deficiencies with loads based on 1934–35 critical year											
1934									13	4		
	Deficiencies with loads based on 1936–37 critical year (with winter shaping)											
1929									1	4	3	
1930								2		2		
1931								18	11	11	8	8
1932	5	7	8			17			5	4	3	3
1933		3	3					5	9	4	3	3
1934		3	3			8		12	41	19	7	7
1935	4	7	7						17	15	7	7
1936	4	7	7							4	3	3
1937		3	3						1	4	3	3
1938		2	3							5		
1939									8	4	3	3
1940		2	3								3	3
1941		2	3							4	3	3
1942		2	3							10		
1944										13	6	3
1948										11	4	
1949										4	3	

Mr. MARTZ. The peaking deficiencies are shown on the first three sheets that you have before you.

The upper portion of these charts shows the deficiencies that would occur in the Bureau system operated on a 1934–35 critical year basis.

Senator CHURCH. Just what is a peaking deficiency?

Mr. MARTZ. It is the inability to supply the power at the time of peak demand, the kilowatts.

Senator CHURCH. Is that inability measured in terms of the demand of your preference customers or measured in terms of your general contractual requirements with all customers?

Mr. MARTZ. The charts are based on these assumptions: That they are the deficiencies that would result in supplying all of our project loads and all of our commitments to the preference customers.

Senator CHURCH. I see.

Mr. MARTZ. To that extent the chart may be looking ahead a year or two when all of the preference customers would be up to their contracts.

Senator CHURCH. But the chart does not reflect any commitment that you may have under contract to private utility companies?

Mr. MARTZ. No, sir.

Mr. NELSON. No, sir.

Senator CHURCH. I think that ought to be made clear for the record.

Mr. NELSON. Right at that point, Senator, it might be a good point to also introduce a table into the record that shows what contract commitments are to the preference customers on the Minidoka project and what their maximum taking has been up to the present time. It shows that there are three of them that are over the existing contract commitments and all the rest are under.

It would probably be a good table to refer to. There are all of the customers and their contract amounts and the maximum that they have taken in both the winter and summer seasons.

You see, we do take advantage of the diversity of load; that is, we permit some of them to have a higher winter contract delivery amount than summer and others vice versa.

For instance, the municipalities generally have a higher winter load. The rural cooperatives that have irrigation pumping load like Raft River have a higher summer load, so that by putting the two together we are able to serve a higher diversified load.

Senator CHURCH. This table will be included in the record at this point.

(The document referred to follows:)

Commercial power contracts

	Contract rate of delivery, kilowatts		Highest recent maximum demand, kilowatts			
	Winter	Summer	Winter		Summer	
Boise project: Prairie Power Co-op	250	250	October 1956	292	August 1957	372
Palisades project:						
City of Idaho Falls	18,000	16,000	January 1958	17,073	May 1957	12,933
Fall River REA	1,900	3,100	December 1952.	1,052	September 1957.	2,747
Lost River REA	3,500	4,100	March 1957	2,581	June 1957	2,305
Lower Valley REA	2,600	2,300	January 1958	2,592	August 1957	2,700
Subtotal	26,000	25,500				
Minidoka project:						
Albion	460	310	January 1958	352	May 1956	272
Burley	7,600	5,900	November 1957.	5,600	do	4,400
Declo	240	170	January 1956	216	September 1957.	202
Heyburn	640	440	January 1958	620	do	400
Minidoka	250	200	do	130	do	98
Rupert	5,400	4,000	January 1957	4,000	do	3,100
East End Mutual Electric Co	570	440	February 1956	452	do	356
Farmers Electric Co	320	240	February 1957	219	do	210
Raft River Rural Electric Co	1,050	7,000	October 1956	3,086	July 1957	9,100
Riverside Electric Co	440	390	February 1958	356	September 1957.	328
Rural Electric Co	1,800	1,800	February 1957	1,422	September 1956.	1,422
South Side Electric Co	800	1,900	January 1958	676	do	1,376
Unity Light & Power Co	2,320	1,990	do	1,908	September 1957.	1,684
Walcott Electric	150	130	February1957	108	do	89
Paul Electric Co	1,550	1,150	November 1957.	1,376	do	1,024
Subtotal	23,590	26,060				
Total	49,840	51,810				

Senator CHURCH. Before I forget it, perhaps this would be a good time to question you concerning another argument that was made last week by the co-ops. That argument was this: They maintained that each co-op contracts with the Bureau for power and they cannot know exactly what their power need will turn out to be and in some cases their power need comes out at the end of the period to be less than that particular co-op has contracted for. In other cases another co-op will find that it has used all that it has contracted for and perhaps must turn elsewhere to buy excess power at very prohibitive rates.

They argued that it ought to be possible to contract with the Bureau on a different basis, to pool the general requirements of the co-ops, that is to say, to total the contract commitment for all the co-ops buying power from the Bureau in such a way that if one did not use up its full commitment that the unused portion could be made available to another in the pool that needed the additional amount.

There was also testimony to the effect that such pooling arrangements had in fact been entered into in the Missouri Basin.

A suggestion was also made that perhaps these co-ops might enter into a pooling arrangement between themselves and then contract with the Bureau as one entity.

I would like to know your reaction to these proposals because I think they are interesting proposals and I would like to know what your view would be with respect to them.

Then we will get back to the peaking conditions.

Mr. NELSON. In the first place, I, of course, do not know what they are doing in the Missouri Basin. Mr. Campbell would have to testify on that.

We have observed through the years, of course, that we do have on the Minidoka project many small entities.

You will see from examination of this chart that they run from the Walcott Electric Co., 130 kilowatts clear up to the city of Burley, 7,600 kilowatts.

We have suggested early in the game that perhaps if those folks got together into an overall preference customer as one entity that that would be fine, but as matters now stand they are individual entities and as such are entitled each and every one to the integrity of service contractually with the United States Government.

Our problem is to apportion out the available power that we have for sale. Incidentally, we have undertaken to apportion all the firm that we have that we can guarantee delivery on through thick and thin and that, by the way, is in accordance with the departmental policy that has been in effect for many, many years. In fact, that is the only policy we have followed in our 50 years of operations up there. It has not changed in that respect.

We endeavor to determine from the cooperatives' own figures what their load growth is and what the requirements are and then, if the sum total of those requirements is in excess of the amount we have available, we undertake to apportion it out in such a way that every one is maintained whole for as long as possible. In other words, we try to apportion it out by foreseeing load growth so they all run out together, at about the same time, so that one does not run out ahead of the other.

In that process, our estimates, of course, have to be made in advance. Some of them grow faster than others and some do not.

We are dealing with a series of individual entities. We have contracted, for instance, with the city of Burley for 7,600 winter kilowatts and we have contracted with another entity—and let us take Raft River as a good example, because they are the ones that are over—for 1,050 kilowatts winter delivery. Right now Raft River summer demand is up to 9,000 and our summer contract amount is 7,000, so that they are over.

Then, if we were to take temporarily from the city of Burley and deliver to Raft River and then next year the city of Burley reaches its contract demand, how are we going to take back from Raft River to give back to Burley? In other words, we signed a contract and must live up to the terms of the contract.

Senator CHURCH. Let me ask you this question. I recognize that you cannot deal with all of these co-ops as a single entity if in fact they are not a single entity. You have to deal with them separately.

Is it possible to deal with them separately on this basis. Is it possible to make a contract with a given co-op in which you commit the Government to supply a certain amount of power with the provision that, if it turns out in a given period that they need additional power and additional power is available to the Government by virtue of the failure of other co-ops to use all the power allocated to them within that period, that then the Government will make that additional power available to the co-op needing it?

Mr. CAMPBELL. May I answer that question, Senator?

Senator CHURCH. Yes.

Mr. CAMPBELL. That is exactly what is happening up there right now. Because of the fact that Albion had a winter contract for 460 kilowatts and a winter demand in January 1958, of only 352, Albion is only paying for the 352 in that month and the difference between 460 and 352 is available to Raft River.

Mr. WEINBERG. That is how we get the overages.

Senator CHURCH. That is how you are supplying them?

Mr. CAMPBELL. That is the only way we are able to supply Raft River. We are not able to contract with Raft River to supply the unused portion. It is not necessary. They are getting it right now.

Senator CHURCH. I want the benefit of your testimony because they made the point last week that some of this firm power that individual co-ops may not use since their need may not turn out to be so large as the commitment in the contract, that some of this firm power was not going to other co-ops but was in fact being sold at dump rates to the private utility companies. Is that so?

Mr. NELSON. This table illustrates what they are all taking and, even though there are three overages there, as far as I know we are, as a practical matter, operating that way although contractually we are not. In other words, they are receiving up to their individual taking right now because everybody is interconnected.

We cannot identify kilowatts. They are all drawing from the combined amount. The sum total of all the Minidoka customers' taking now is less than the sum total of our contract rates of delivery and they are paying for it at their regular rate structure.

Senator CHURCH. In 1956, I believe, the Bureau had to purchase energy from private utility sources for Raft River.

Mr. NELSON. That is correct, sir.

Senator CHURCH. The Bureau had to purchase energy from private sources. What happened there?

Mr. NELSON. In 1956 we had this situation, and we have had this situation for several years. The system of all these cooperatives, the system of the Bureau of Reclamation and of the Idaho Power Co. are all interconnected. It is just as though we all have a joint checking account and everybody is writing checks on that account. When

you reach the point that your withdrawals exceed your deposits you are in trouble.

We have a peculiar situation there that does not prevail in other Federal systems, to my knowledge. That is this: we have the revenues that accrue to the Government from the Idaho Power Co. more or less pooled in one transaction; namely, we have the sales from the Boise project, the wheeling charges for deliveries to the Minidoka project, and the actual energy deficiencies that we have incurred on the Minidoka project actually coming out in the transaction as a form of setoff deductions to revenues that accrue to the Boise project.

The revenues that accrue from the sales of Boise power wheeled to Minidoka, and other revenues for dump energy that is not wheeled but is sold during the period of high water run and so on, are required to effect payout of the Boise project. Starting in 1955, as a matter of fact, we found ourselves in a situation where the combined taking on the Minidoka project reduced our revenues by as much as $15,000. In the final financial settlements with the company, we found that our Boise project revenues were being shorted by the amounts of the excess takage at Minidoka, so that that meant that we had to go to Minidoka project customers and tell them that we would like to be made whole on our out-of-pocket costs for the additional amounts.

There is a further point that I think was raised in the testimony, and I believe I should, in all fairness, bring that out. It so happens that that was a good water year on our Boise project system, so that it is true that energy was generated and sold on the Boise project under our contractual arrangements as dump energy part of which would have fit this load pattern down there but, remember, somebody must be the insurer of the transaction of this kind.

When you sign a contract—and this contract, I might add, was signed in 1950—you do not know when your critical year is going to occur. It might occur next year. It might not occur for the next 20 years. But the only thing we can go on is hindsight on what has occurred in the past, so that our ability to serve and deliver is based on the critical year of record.

Therefore, this price for excess taking was based on the probability that it would occur, and would have to be made up by, probably, steam that would be imported from Salt Lake, so, where we had gone for 5 years and somebody had underwritten that insurance, the year we did get into the situation it was not reasonable then to go back and try to amend the contract for that 1 year to permit us to sell secondary energy to serve a firm load. That is our problem.

Senator DWORSHAK. How much power did the Bureau of Reclamation buy from other than the Bureau sources at that time or in the succeeding years?

Mr. NELSON. The figures ran about as follows: In 1952, the problem began to be apparent. We had a minor excess. But in 1953 the figure was $11,000. In 1954, it was $15,000. In 1955, it was $47,000.

Understand, of course, our preference customers paid for the excess taking at our applicable rate structure, so our net loss in the transaction in 1955 was $15,000, and in 1956 the excess taking was $78,000 and our loss would have been $39,000, but we collected that to keep the Boise project whole.

Senator DWORSHAK. But for a period you were actually reselling power procured from other sources to preference customers at a loss?

Mr. NELSON. That is correct. That is, in effect, what we were doing, contractually. After the water year is finished, you could demonstrate that the energy in the form of secondary was in the system, so I do not believe that the company had to import power to do that job for that particular year.

Senator CHURCH. You mean the company was actually buying secondary power from the Government itself at a very cheap rate and reselling it to the Bureau at their standard rates, and the Bureau was then supplying that power to preference customers at a loss.

Mr. NELSON. I think that is one way of calculating it, hydrologically. On the other hand, we would still have the questions of the insurance that we paid for all of these previous years for the critical year that we have not incurred.

Senator DWORSHAK. Is the Bureau currently purchasing power from other sources to deliver to any customers?

Mr. NELSON. No, sir.

Senator CHURCH. Supposing that these co-ops were able, or some of them were able, to come to an arrangement between themselves in which one entity would be designated as the purchasing agent for the others; would the Bureau have any objection, or is there any disability under the law that would prevent the Bureau from entering into a contract that would affect several through one designated bargaining agent?

Mr. CAMPBELL. Let me answer that question, Senator Church. The East River Co-op in the Missouri River Basin was mentioned as an example of what might come about in Idaho.

The East River Cooperative is generation and transmission, G and T, as they are called, and is made up of some twenty-odd individual REA cooperatives in a very localized area. They went together and formed this master cooperative and threw all their contracts together and assigned them to the master cooperative voluntarily.

We now bill the master cooperative for the energy consumed by its individual members.

We deliver that energy to the meters of the individual members, and absorb the losses in so doing, but we do take advantage of the diversity between those members because we do not meter that on a simultaneous peak. We take the individual peaks that are run up by the individual members and add those together and bill on that basis, rather than trying to find the 1 highest peak that has occurred during the 30 days which is a rather involved process; so that, in that manner, we feel that we are made whole because we accept losses and take the benefit of diversity.

It, in effect, is the same thing that has happened here, except we are billing the individual members rather than sending the bill to the master cooperative.

Senator CHURCH. So you would see no particular advantage to be gained by these co-ops through such an arrangement?

Mr. CAMPBELL. I would see none at all. Actually, the limitation of the resource is the problem in southern Idaho. It has been apparent for a number of years, and I would like the record to show that this one particular cooperative that is in the worst trouble has, in

the face of this shortage of resource, extended its system down into Nevada and picked up new customers.

Senator CHURCH. That being the Raft River?

Mr. CAMPBELL. Yes.

Mr. NELSON. May I add a comment?

Senator CHURCH. Surely.

Mr. NELSON. Speaking now from the shortage of resource, I think, too, our problem is what can we do about it? We certainly have left on the Snake River a wealth of undeveloped potential. I did not get a chance to point some of them out, but they range all the way from something better than a half a million kilowatts on several sites in the Boise area clear up the Snake River to the latest one that the Congress is considering, namely, 90,000 kilowatts on Burns Creek site that would double the firm output of Palisades. So, we are sort of in a position of a banker who has more loans than he has funds, and we would certainly like to do something about it.

We appreciate the problems that these people have.

(The following was supplied for the record:)

Potential power developments—Snake River Basin in Idaho

	Ultimate installed capacity kilowatt
Palisades project: Burns Creek powerplant	90,000
Snake River project:	
Scriver Creek—Garden Valley Division	368,000
Mountain Home Division—Guffey Unit	145,000
Total	603,000

Senator CHURCH. I appreciate that statement, Mr. Nelson, and I think I can say on behalf of my colleague, Senator Dworshak, and myself, that we are endeavoring to assist in getting this problem solved and that the Burns Creek bill that we jointly sponsored was passed in the Senate last year and is now presently pending in the House of Representatives. We are very hopeful that this worthy project will be approved by the House and the matter will be authorized in this session of Congress.

I am hopeful, too, that some money can be obtained in the next session of Congress.

Mr. WEINBERG. I would like to add a word, Mr. Chairman because others will read this record; that is, that we have been talking here of dividing up the pie. But the big problem is how to enlarge the pie. We can whack it 64 ways but when we get through we only have the pieces in the same pie.

These matters lead to frustrations and sometimes these frustrations demonstrate themselves in the asperity of some of the remarks that we have been making and they likewise are sometimes demonstrated in some of the correspondence that we have received.

We seek no quarrel with Raft River. We sympathize with all of the co-ops. We hope they sympathize with us and we are seeking a way out of the problem. We are trying to avoid fingerpointing and pointless argument on the subject.

Senator CHURCH. I think that is a constructive approach and it is in the same spirit that we have been attempting to conduct these hearings.

Mr. WEINBERG. That is correct.

Senator CHURCH. Now, before we get back to the question of peaking deficiency, I would like to ask a few questions related to last week's testimony with respect to the firm power that you are now supplying to these co-ops.

The argument was made last week that the firm power commitment to the preference customers involved very choice power indeed and that they felt that power of lesser quality, that is to say, seasonal interruptible power ought to be made available, in cases where that kind of power is acceptable, to preference customers. Now, first of all, I would like to inquire as to what the present requirements of the law are with respect to the preference clause.

Does the law restrict the matter to firm power where preference customers are concerned or do these co-ops and municipally owned public enterprises have a right to preferred status for interruptible or for seasonal power as well?

Mr. WEINBERG. The preference clause is not restricted to firm power.

Senator CHURCH. In the actual practice in southern Idaho the Bureau has contracted with these preference customers only with respect to firm power; has it not?

Mr. NELSON. That is correct. I think I should add that I believe there now we are getting into one of these policy questions and also an operating problem, too.

In the first place, of course it has been a long standing departmental policy not to sell secondary energy to serve a firm load unless there is the ability on the part of the customer to carry his own load during the period of deficiency. That would be either by having a generation of his own or a contractual arrangement of some kind that would guarantee the availability or the integrity of service in that period.

Senator CHURCH. Just so that I understand this, suppose that a co-op were to come to the Bureau and the co-op were to say, "We have contracted in the past for so much firm power. Our present needs are such that we anticipate that we will have to buy extra power from private sources at what we regard as a prohibitive rate. Therefore, we would prefer to take our chances and we would prefer to buy additional seasonal or interruptible power when available from the Bureau so that on those occasions when such power is unavailable we can then turn to the private source and buy it at the punitive rate or at this high rate and our general situation would be better than if we had to look entirely to this source for additional power."

Mr. NELSON. I agree that the general situation would be better but let me break that statement down into two parts.

Senator CHURCH. Yes, sir.

Mr. NELSON. The first part is the policy part that states that we shall not sell interruptible under those conditions.

Senator CHURCH. How long has this been the policy? How does it conform with the law? That is the question that disturbs me.

Mr. CAMPBELL. Let me respond to that, Senator.

It is not a new policy. It is more or less traditional, let us say, with not only the Bureau but with other operating identities that secondary or dump power—secondary power is normally dump power that is available over a month or a longer period, and dump may be avail-

able only hour by hour or during the night hours—that those two sources of power are not definitely assured to anyone and in order to serve a load should be backed up by some alternative source of generation. Utilities can use it because they can shut down steam plants or they can shut down turbines and store water in reservoirs and then start them up as occasion demands.

Where the customer has no source to take the place of this dump or secondary power when it is not available then we insist that he must provide that source either by a contract backing it up or generating facilities of his own.

Senator CHURCH. Pursuing that line of thought, if a co-op lacking generating facilities of its own were to form a contract with, let us say, the Idaho Power Co. under the terms of which the co-op could, from time to time, as its needs might require, purchase power from the power company which the power company would guarantee to supply at certain rates, would that be regarded by the Bureau under the policy as sufficient backup to permit the Bureau to sell secondary power to the co-op?

Mr. CAMPBELL. Yes, sir.

Senator CHURCH. It would?

Mr. CAMPBELL. If that were a firm commitment.

Senator CHURCH. I think this should be in the record as one of those facts that ought to be generally known.

Mr. NELSON. I broke that down into two parts. May I dwell on the second point?

Senator CHURCH. Yes.

Mr. NELSON. The situation that the Bureau itself would find itself in, if you do not have the guaranty that you just spoke of, is this: The interconnected system of the Bureau is serving a very substantial project pumping load, and we have the responsibility for maintaining the integrity of that service. Namely we cannot risk voltage drops and we cannot risk at any time not being able to supply the service that was a part of the authorization of the project in the first place. Now we have several hundred thousand acres being served from this system based on the 100-percent availability of our energy except for this small deficiency in the critical year, and we have a contractual commitment now that we will be made whole on that year.

If, over and above that, we sell a block of secondary, that will have a hole in it in the critical year just based on somebody saying, "I will take my chances," all these people are interconnected. We have no way of going out individually and shutting off a farmer's pump. If a farmer makes an investment on the basis of the secondary that is there during the good water years, what happens when the critical year comes along? That is the year that all the reservoirs have gone down. We have lost capability at Palisades and at Anderson Ranch. The private companies lose capability on all their hydro plants. Everybody is scrambling for power, and then they look to alternative steam sources, possibly, down in Utah.

Well, ground water is not affected. Ground water does not get affected by dry cycles. It is a relatively stable source of supply, so everybody is doing a maximum of pumping, too; so that, if we have people that have gone along during the good years and hooked on, when the bad year comes along are they going to voluntarily curtail

their pumping load, or is somebody going to have to go and force them to do it? I think they will start writing their Congressmen before they do that.

Senator CHURCH. I have no doubt about that.

Mr. NELSON. In the meantime, our voltage begins to fall, and we burn out some pumps and we are all in trouble.

Senator CHURCH. It would be possible to treat this secondary power in winter and summer categories, would it not?

Mr. NELSON. Certainly.

Senator CHURCH. So that, possibly, sales could be made of secondary power in the winter that could not be made in the summer, owing to this very danger that you mention. Some little time ago, I interrupted your discussion.

Mr. WEINBERG. I would like to add one more point to Mr. Nelson's résumé of the horrors that would befall us in that situation, and I think it is one which we, as a Government operating agency, cannot overlook. We just could not drop off a whole pumping area. It is unthinkable. But the Comptroller General would then, very properly, inform the Congress that we were profligate in carrying on the Government's business because we let the Government get into a situation like this. So we would be up here explaining for the next 5 years and satisfying nobody, because in those circumstances you could not satisfy anybody as to how it was that we had let this situation develop.

I do not think that the position of the Comptroller General in these matters can be overlooked by any operating agency. Again, it comes back to increasing the resource.

Senator CHURCH. I think that this testimony is very helpful and enlightening and, certainly, makes a contribution to the whole record of these proceedings, but, you see, I happen, personally, to be one who believes in the the preference clause very strongly.

I can remember the time, and I have read a great deal about the time when 95 percent of the farmers in Idaho did not have electricity. They were not getting it from private utility companies because it was not very profitable to build lines out into sparsely populated rural areas, and it was the preference clause, which is based upon the principle of preference for these small rural cooperatives, that was largely responsible for having brought the power to these areas and then having stimulated private companies to do so likewise.

These are typically small, independent enterprises that lack the resources to have generating capacity of their own and, therefore, ought to be entitled to first chance at public generating plants. So, I believe in the preference clause. I believe that it is necessary and very much in the public interest, and I am offended at the kind of propaganda I read from private utility companies which tries to make this preference clause look discriminatory and unfair.

I am just interested in trying to determine whether the full benefits of this clause are being realized within the reasonable circumstances of your operation in southern Idaho.

I do think that it is noteworthy that, if one of these co-ops does have a contract that gives the necessary security for obtaining necessary power when the Bureau cannot supply secondary power, in such circumstances it ought to be entitled to its preference status in obtaining secondary power from the Bureau.

Mr. NELSON. We certainly agree with that.

Senator CHURCH. Can we return to the question? Do you remember where you were in the discussion?

Mr. MARTZ. As I recall, we had started to indicate that the upper part of the chart illustrates the deficiencies that might be in prospect under the situation in which we are now operating. By that I mean that, if a 1934–35 critical year should again occur with the project loads and commitments that we now have, then the chart indicates that not only in that 1934–35 year but in other years, particularly 1931 to 1938, there would be deficiencies of peaking power in varying amounts, and I think, if you will look casually across the chart, you will see that the problem occurs largely in August, September, a little bit in October, and occasionally in April.

Senator CHURCH. Is this chart based on kilowatts?

Mr. MARTZ. The left-hand scale is kilowatts.

Senator CHURCH. In thousands?

Mr. MARTZ. Thousands of kilowatts.

Senator CHURCH. So that you could run a deficiency.

Mr. MARTZ. The high is 40,000 kilowatts, in the upper section. Because of the interest in the possibility of integration with the Columbia River, we have shown in the lower section of the chart the extent that the peaking deficiencies would be magnified if we undertook a larger load than we now have. This ties into the 13 megawatts increased winter energy that has been brought out in previous testimony. This illustrates the peak and, if you will look at August 1931, you will see the 84-megawatt deficiency which has been mentioned.

Senator CHURCH. That refers to how much you might have to wheel, possibly, to make up for that deficiency?

Mr. MARTZ. Yes.

Mr. NELSON. In other words, the integration of the Columbia River will wipe those peak deficiencies all out. If we do try to handle that 15,000 kilowatts with our own resources, we are in a situation which is a tough one.

Mr. MARTZ. The lower section of the chart, Mr. Nelson, describes a situation we would have with integration with the Columbia River. That is not related to the 15,000 kilowatts.

Mr. NELSON. They are going to protect us on peak.

Mr. MARTZ. That is the peak that will have to be protected.

Senator CHURCH. That protection would be achievable through integration?

Mr. NELSON. That is correct.

Mr. MARTZ. It does indicate the magnitude of power flows that would be required.

Senator DWORSHAK. What was that peak in 1931?

Mr. MARTZ. In 1931, Senator Dworshak, the August bar on the chart, the high point is 84 megawatts. That is 84,000 kilowatts.

Senator DWORSHAK. I wanted the record to be clear on that.

Mr. MARTZ. Thank you.

Senator CHURCH. Is there anything in your existing contracts, Mr. Nelson, with the Idaho Power Co., that would obstruct or prevent this integration with the Government system in Oregon?

Mr. NELSON. No, sir. I wanted to add that I think there was some worry in the testimony the other day that, perhaps, we were committed contractually to the point where we could not make changes that might be advantageous. I want to point out the history of our operation that, whenever a changed condition came along, we proceeded to renegotiate. That changed condition will come along with the next added generation on the river.

We know very well that, with Burns Creek coming into the system, we are going to have to alter our contractual arrangement, and will either come out with as good or better a wheeling arrangement or will be free to do something else, so that we feel that we can accomplish what is necessary.

Senator CHURCH. I want to thank you, gentlemen. I have no further questions.

Senator Dworshak, do you have questions?

Senator DWORSHAK. I do not know whether, prior to my joining the committee group, you discussed the status of the proposed American Falls powerplant.

Senator CHURCH. We did discuss it, briefly, but feel free to ask any additional questions.

Senator DWORSHAK. I want to call Mr. Nelson's attention to a meeting which was held about a year ago in Burley, which he attended, where he testified as to the potential use of power which would be made available at American Falls if another Federal powerplant were constructed there.

Last week, one of the witnesses before the committee testified that, if that plant were constructed, the available power would largely solve the shortage which now existed among the members of the Snake River Power Association.

I raised the question whether, if the plant were constructed, that power would be available for these preference customers or whether that power, under the law, would have to be made available to the 700 homesteads on the Minidoka North Side extension.

What is the situation in regard to that?

Mr. NELSON. We discussed that a little earlier this morning, Senator Dworshak. I will be pleased to go into that.

The situation is this: That I pointed out that American Falls powerplant is feasible. It can be constructed and, as long as the output from that plant can be produced at a lesser cost than steam, it will remain feasible. As it was originally authorized, the costs were allocated to irrigation pumping and were noninterest bearing. That is the basis for the authorization we now have.

Senator DWORSHAK. Which is how much?

Mr. NELSON. You are referring to total cost now?

Senator DWORSHAK. The authorization cost.

Mr. NELSON. I have that here. The original uathorization was for $6,600,000. That is an expenditure ceiling which, of course, would not include some previously incurred costs, so that the total could be higher than the $6,600,000 by the amount of the past expenditures.

The present estimated cost of the American Falls powerplant, including previously incurred costs, is $10,150,000, and, taking out past costs, we would require an expenditure of $9,709,000 to build American Falls powerplant at today's prices. Allocating the power invest-

ment to irrigation which would be noninterest bearing would mean that the output would go to the Minidoka North Side for pumping purposes. However, that process would, by displacement, make available some equivalent energy from Palisades now being used to supply the North Side and Michaud pumpers.

There are still some deficiencies as between winter and summer flow, by contract and otherwise, below American Falls, so that there would be an effective addition of something between 3,000 and 4,000 kilowatts of firm to the system from the 30,000-kilowatt plant.

Senator DWORSHAK. The rest would be interruptible?

Mr. NELSON. The rest would be irrigation-season pumping energy, which would go to the North Side, presumably.

Senator DWORSHAK. To what extent would that displacement of power now coming from Palisades for the North Side be utilized to take care of the 16 preference customers?

Mr. NELSON. To the extent that they could fit irrigation season firm into their load pattern, it could be utilized.

Senator DWORSHAK. How many kilowatts?

Mr. NELSON. I will supply that for the record. I have it someplace here.

(The information referred to follows:)

The American Falls powerplant could supply a firm irrigation load of approximately 3,000 kilowatts. This is based upon the critical summer period, assumed to be similar to that experienced in 1934.

Senator DWORSHAK. What would be the maximum generation of power at that plant?

Mr. NELSON. The maximum would be 30,000 during the irrigation season, but it would fall off 3 to 4 during the nonirrigation season during certain periods of time.

Senator DWORSHAK. Is that water now passing through the American Falls Dam without being used, or is it being used?

Mr. NELSON. I would say that there is water passing American Falls Dam now during the irrigation season that is not being used. I would also say that there is water passing American Falls Dam during the irrigation season that is being used through the Idaho Power plant, which has capacity in excess of the rights of the company, but the contractual provisions do allow them to use it until such time as the Government takes over its share of the releases.

Senator DWORSHAK. How much power is being generated there by the Idaho Power plant?

Mr. NELSON. It is about 27,000.

Senator CHURCH. At what part of the year?

Mr. NELSON. Primarily, during the irrigation season.

Senator CHURCH. That falls off in the wintertime?

Mr. NELSON. That is correct.

Senator DWORSHAK. I have one more question, Mr. Chairman.

Is the Bureau urging construction of this plant as a possible solution of the apparent shortage of power generated by Federal plant in south central Idaho?

Mr. NELSON. The Bureau did propose the construction of American Falls powerplant, as you know. We have a feasibility report covering it.

The item came up, was included in three successive budget requests. There was a certain amount of local opposition to the construction of that plant and not very much enthusiasm on the part of the people of Power County where the plant would be situated and, in fact, some outright opposition.

In the meantime, of course, Burns Creek came along where we had almost unanimous support for a much larger installation. There is still a little opposition to Burns Creek but not local opposition.

We have not only the endorsement of all of our potential customers but we have also the endorsement of all of the irrigators and all of the municipalities and, in fact, everybody up and down the river so that it seemed to us that the prudent thing to do was to go after the larger of the two; but I believe that in due time undoubtedly both will be built.

Senator DWORSHAK. You believe, then, that power generated at the proposed Burns Creek plant would relieve for several years the shortage in south central Idaho?

Mr. NELSON. Yes, I stated in, I believe it was the meeting you referred to that I felt that Burns Creek was the next best investment we could make for addition to our power resource primarily because of the size and also because of the fact that about 98 percent of the investment was repayable with interest and was still a good proposition.

Senator DWORSHAK. That is all, Mr. Chairman.

Senator CHURCH. Gentlemen, I want to thank you very much for the testimony that you have given and the very direct and complete and responsive answers that you have made to the questions. I appreciate very much your cooperation.

I do think that the record of these entire proceedings will prove helpful in finding solutions of these problems.

I have been supplied a copy of a letter addressed to Harold T. Nelson, the regional director of the Bureau of Reclamation in Boise, signed by the president of the Salmon River Electric Cooperative, dated May 17, 1957, with the request that it be made part of the record.

I therefore make it a part of the record at this point.

(The letter referred to follows:)

CHALLIS, IDAHO, *May 17, 1958.*

Mr. H. T. NELSON,
District Director, United States Reclamation Service,
Boise, Idaho.

DEAR MR. NELSON: We are now receiving electricity from the Palisades project and have had the distinct pleasure of paying a monthly bill for this service.

Needless to say, our power cost was approximately one-half the amount previously paid for the same amount of power.

All of us here in the Salmon River Electric Cooperative are very appreciative of the consideration and attention, given to this cooperative by you, your engineers, legal advisers, and others and wish to thank you very sincerely for these favors.

With best personal regards to you and to your office staff, we remain.

Sincerely,

SALMON RIVER ELECTRIC COOPERATIVE,
By FRANK LYNISTADT, *President.*

Senator CHURCH. I again thank you, gentlemen, for the hearing. The hearing is adjourned.

(Whereupon, at 12:35 p. m., the hearing was adjourned.)

APPENDIX A

THE FOLLOWING IS A MEMORANDUM OF THE CHAIRMAN, DATED MAY 7, 1958, TO THE COMMITTEE ON INTERIOR AND INSULAR AFFAIRS ON MATERIALS CONCERNING COORDINATION OF PROJECTS IN THE COLUMBIA RIVER BASIN

MEMORANDUM OF THE CHAIRMAN

To the Members of the Interior and Insular Affairs Committee:

In contrast to the development of the Tennessee River exclusively by the Tennessee Valley Authority, development and management of the Columbia River on a unified basis now involves coordination between governments and between public and private agencies.

A hearing has been conducted on the situation in the upper Columbia Basin covering aspects of international coordination and cooperation.

Hearings on May 14–15, 1958, will involve coordination, or integration, of operations of the Idaho Power Co. and the large public projects already in operation on the Columbia River. Negotiations between the company and the Bonneville Power Administration are now underway.

Statement of principles upon which a coordinating agreement is being approached, proposals of the company and the BPA, and considerable factual material on possible operations and benefits from coordination, or integration, are contained in correspondence between the chairman, the Department of the Interior, Bonneville Power Administration officials, and others, and in details of negotiations supplied to the chairman by the Department of Interior. Since these are pertinent to the hearing, contain background for the members who will participate, and will later be made a part of the hearing record, I have directed their preparation as a committee print, in advance of the hearing, for the timely information and use of the committee. Some additional technical materials are available in the committee files.

JAMES E. MURRAY,
Chairman, Committee on Interior and Insular Affairs,
United States Senate.

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COLUMBIA BASIN PROBLEMS

LETTER OF CHAIRMAN JAMES E. MURRAY TO SECRETARY OF THE INTERIOR FRED A. SEATON

WASHINGTON, D. C., *October 31, 1957.*

Hon. FRED A. SEATON,
Secretary of the Interior.

DEAR MR. SECRETARY: Published reports and reliable sources indicate that the Idaho Power Co. has made available to the Bonneville Power Administration a proposal or plan for the coordination and/or integration of Brownlee Dam on the Snake River with BPA operations.

Such coordination of the Idaho Power Co. projects in the middle Snake River is required by the terms of the license issued by the Federal Power Commission and will obviously have affect on Bonneville Power Administration operations, the Northwest power pool and control of the Columbia River for flood control and navigation.

Because of the importance of the agreement, and because matters concerning this project are pending before Federal and State commissions and Congress for early action, I would appreciate your furnishing the committee, no later than November 4, 1957, with copies of any proposals which have been made between the Idaho Power Co. and the Bonneville Power Administration for coordination or any plan of operation which has been discussed. This included draft contracts and any other such documents, whether formally or informally submitted by either party.

Because of the great public interest and stake in this matter, I feel that our committee should have an opportunity to review any coordination or integration contract proposal between the Idaho Power Co. and Bonneville before it is finally executed. I urge you to consult with the committee in regard to the matter to the fullest extent and keep the members advised as negotiations proceed.

Sincerely yours,

JAMES E. MURRAY, *Chairman.*

REPLY TO SENATOR MURRAY BY ASSISTANT SECRETARY OF INTERIOR ROGER ERNST

DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D. C., November 6, 1957.

Hon. JAMES E. MURRAY,
Chairman, Committee on Interior and Insular Affairs,
United States Senate, Washington, D. C.

DEAR SENATOR MURRAY: Please refer to your letter of October 31, acknowledged on November 1, and to your telegram of November 4 requesting that the committee be furnished with copies of proposals made between the Idaho Power Co. and the Bonneville Power Administration relative to the coordination of the company's licensed middle snake projects with the Bonneville system.

The discussions with the company concerning coordinated operation have been carried on in the field between company officials and the Bonneville Power Administrator and his staff, and have been entirely exploratory and preliminary in nature. Any discussions, information, or documentary material that has been transmitted by Bonneville Power Administration representatives to the company have been without commitment and subject to revision, modification, or clarification as the Bonneville Power Administration's analysis of the problem progressed.

Accordingly, we advised in our acknowledgment of November 1 that we were requesting the necessary material from Bonneville's Portland headquarters. The Bonneville liaison office in Washington did, however, receive on October 11 from the Portland headquarters a copy of a proposal made by the company for discussion purposes on January 29, identified as draft No. 2. In view of the urgent reiteration of your request by your telegram of November 4, we are enclosing the company's draft of January 29 herewith. We have also requested the Bonneville Administrator to airmail directly to the committee at once all other documents that have been exchanged by the company and Bonneville Power Administration, either formally or informally.

Material prepared and presented to Bonneville Power Administration by the company, including the January 29 draft, enclosed, should be understood as reflecting the company's views for discussion purposes only, and there have been no agreements or commitments thereon expressed by any Government official. Likewise, as indicated above, material that has been presented by Bonneville representatives has, for its part, been presented without commitment and subject to further study, review, and formulation of position.

The Department fully appreciates the importance of achieving a coordination agreement that will gain for the region the maximum effective utilization of the resources available in a manner that thoroughly comports with the public interest. It is approaching effectuation of such agreement from that standpoint.

Manifestly, there is involved in any coordination arrangement of this scope many complexities of detail in addition to the fundamental principles which must govern. The detailed terms and conditions which will be worked out in the light of governing fundamentals will, themselves, no doubt, require careful and extended consideration.

While we are not prepared at this time, of course, to comment regarding the detailed terms and conditions which will have to be worked out, the Department has, with the Bonneville Power Administrator, arrived at the general, fundamental principles which, in its view, are required to achieve the maximum possible benefits of coordination in the public interest.

You are, of course, familiar with the physical and hydraulic factors involved in coordinating the middle Snake projects with the Northwest power pool. The essence of any coordination arrangement involves an exchange of energy between the Federal system and the Idaho Power Co. whereunder the company receives energy during the summer months and the Government receives energy during the winter months.

The fundamental principles which, in our view, should govern the terms of the exchange are that it should be in a ratio equitable to both parties, taking cognizance of the fact that the power exchanged is, in large degree, surplus to the requirements of the generating entity at the time of its generation. The coordination of the licensed projects with the Northwest power pool being required as a condition of the license issued by the United States, it is likewise fundamental that the generation at downstream Federal plants from water releases at Brownlee are not to be considered in determining the ratio for the exchange of energy.

It is the Department's intention, before any arrangements are formalized, thoroughly to discuss them with the Government's customers, customer associations, and other interested groups such as those represented by the membership of the Bonneville Regional Advisory Council. We shall also, of course, keep the interested congressional committees fully advised.

Sincerely yours,

ROGER ERNST,
Assistant Secretary of the Interior.

LETTER OF DR. WILLIAM A. PEARL TO SENATOR JAMES E. MURRAY

DEPARTMENT OF THE INTERIOR,
BONNEVILLE POWER ADMINISTRATION,
Portland, Oreg., November 6, 1957.

Hon. JAMES E. MURRAY,
United States Senate, Washington, D. C.

DEAR SENATOR MURRAY: At the request of Secretary Seaton, we are enclosing copies of all documents which have been prepared by the Bonneville Power Administration and by the Idaho Power Co. in connection with the discussion and study of a lawful and equitable method of complying with the terms of the company's license for its middle Snake River projects.

We would like to emphasize the fact that all of the discussions between the Administration and the company to date have been preliminary in character and, for the most part, have been directed toward ascertaining the total additional firm-power capability which will inure to the benefit of the region by reason of the coordination required by the license. Copies of the studies developed in this determination are included in the enclosure. While some of the documents enclosed may appear to be in contractual format, we wish to further emphasize the fact that neither the Administration nor the Idaho Power Co. have to date made any firm offer with respect to coordinated operation or to the division of the benefits resulting therefrom. Proposals for discussion purposes are normally prepared thus to insure that all parties are precisely informed of the issues under consideration.

In line with our usual practice, it is our intention to thoroughly discuss all fundamental features of any proposed agreement establishing coordinated operation of the Idaho Power Co.'s project and its system with the Northwest power pool with all interested groups and agencies in the Pacific Northwest before any contract is finally formalized.

We will be most happy to keep your committee fully informed as developments are made in the course of our discussions.

Sincerely yours,

WM. A. PEARL, *Administrator.*

Documents Submitted to Chairman Murray With Dr. Pearl's Letter of November 6, 1957

Conference and Telephone Call Report

December 5, 1955.

For: Office of the Administrator.
From: John P. Jolliffe.

Outside caller or conferee: Ralph Gale, vice president, Idaho Power Co.

Summary of discussion: I called Mr. Gale to advise him that we had completed our studies on the integration of the Brownlee, Oxbow, and Hells Canyon Dams into the Northwest system, and that we would have them in the mail sometime this week.

It was mutually decided to hold a meeting to discuss the study in Boise, Idaho, on January 4, 1956.

December 15, 1955.

Mr. John T. Kimball,
Vice President and General Manager,
Idaho Power Co., Boise, Idaho.

Dear Mr. Kimball: You will recall when we were in Spokane you expressed an interest in our standard maintenance frequencies. I have finally been able to locate a copy of some earlier material which we distributed about a year ago to our customers. I am attaching that portion of this material which was applicable to maintenance with the hope that it will be useful to you.

I hope we can send Mr. Gale some information on the integration of your middle Snake dams sometime next week. In looking over the material in draft form I find it very interesting and I am sure you people will also.

I would like to take this opportunity to send you seasons greetings and best wishes for the coming year.

Sincerely yours,

Miller Evans,
Acting Director, of Operations and Maintenance.

December 16, 1955.

Mr. Ralph Gales,
Vice President, Idaho Power Co.,
Boise, Idaho.

Dear Mr. Gales: In Mr. Jolliffe's absence I am attaching for your review and consideration a preliminary study and analysis prepared in this division relative to the coordinated operation of Brownlee with the Federal system and the Northwest Power Pool. Mr. Jolliffe and 1 or 2 of the staff are planning to meet with you in Boise on January 4, 1956, to discuss the study if this still continues to be agreeable to you. In the meantime we are continuing to review the overall problem and will be glad to try and answer any question that you may have prior to the meeting. I am sending a copy of this material to Mr. Boyd Austin of the Bureau of Reclamation at Boise, who has been designated as the Bureau representative on this problem.

I'd like to take this opportunity to extend to you my best wishes for the forthcoming year.

Sincerely yours,

Miller Evans,
Acting Director, Division of Operations and Maintenance.

December 21, 1955.

Mr. Lesher Wing,
Federal Power Commission,
San Francisco, Calif.

Dear Mr. Wing: This is to let you know that the meeting scheduled in Boise, Idaho, on January 4, 1956, pertaining to coordinated operation of the Brownlee storage with the Northwest Power Pool through the Federal system, has been

postponed until January 11. Please advise your representative of this change. The exact time and place will be forwarded to you prior to the meeting.

Very truly yours,

JOHN P. JOLLIFFE,
Chief, System Operations and Power Resources.

DECEMBER 28, 1955.

To: Mr. Henderson M. McIntyre.
From: Administrator.
Subject: Idaho Power integration.

The other day when the advisory board met we discussed the integration with Idaho Power. As you know, Reclamation has designated a man to represent them at all your meetings with the Idaho Power.

I asked General Foote if he would like to have representation present and he said he thought he would designate Mr. Mark Nelson to represent him. Mr. Wing also indicated he would like to be represented and designated Mr. Irvine J. Rees.

Will you please forward to these men the material you prepared for this meeting, and keep them informed regarding when your meeting will take place with the Idaho Power in Boise.

WM. A. PEARL, *Administrator.*

DECEMBER 30, 1955.

Mr. IRVINE J. REES,
Engineer, Federal Power Commission, San Francisco, Calif.

DEAR IRVINE: Enclosed is a copy of the power operation studies prepared by BPA for discussion with the Idaho Power Co. relative to coordination of Brownlee with the Federal system and the Northwest Power Pool. This copy is in addition to the one sent by Dr. Pearl to Mr. Wing.

As you know, the meeting at the Idaho Power Co. offices in Boise, Idaho, has been tentatively scheduled for January 11, 1956. In the meantime should you have any questions regarding the studies, please let me know.

Very truly yours,

H. M. MCINTYRE,
Hydraulic Operations Officer.

IDAHO POWER, CO.,
Boise, Idaho, January 12, 1956.

Dr. WILLIAM A. PEARL,
Administrator, Bonneville Power Administration, United States Department of the Interior, Portland, Oreg.

DEAR DR. PEARL: Your letter of December 21, 1955, to Mr. T. E. Roach, has been referred to me for reply.

The information regarding the load estimates which was furnished you by Mr. H. R. Moore, under date of October 14, a copy of which is attached, is suitable and the most current estimate we have regarding the total peak and energy loads by months to July of 1967.

The electrical data on major new transmission facilities which will be added to our system and be in operation by January of 1961 is shown on the attached schedule headed "New and proposed 230 kilovolt transmission lines," and also on the attached map.

The schedule of dates when units at the Oxbow and Brownlee plants will be added is changed to the following dates:

	Brownlee	Oxbow
Unit No. 1	May 1958	April 1961.
Unit No. 2	July 1958	May 1961.
Unit No. 3	September 1958	July 1961.
Unit No. 4	November 1958	August 1961.

We will be very pleased to participate in meetings which your staff may have during the preparation of your 1958 budget data.

If the above information is not complete or is not in the desired form, please do not hesitate to advise us and we will endeavor to comply with any request.

Yours very truly,

R. E. GALE, *Vice President.*

Idaho Power Co. load forecast 1956–67 for engineering subcommittee of Northwest Governors' power policy committee

[Megawatts]

	July	August	September	October	November	December	January	February	March	April	May	June
1956–57:												
Peak	477	475	452	395	408	413	428	401	383	412	461	487
Energy	363	357	333	288	290	295	307	297	288	302	342	361
1957–58:												
Peak	505	503	483	421	434	439	455	427	407	438	493	534
Energy	384	377	354	305	307	312	325	314	305	320	364	394
1958–59:												
Peak	553	550	520	454	468	473	491	461	440	512	611	656
Energy	418	411	381	329	331	336	350	339	328	377	456	486
1959–60:												
Peak	676	673	641	571	586	592	610	578	556	590	653	684
Energy	513	505	473	417	420	425	440	428	417	434	484	507
1960–61:												
Peak	706	708	669	544	610	616	636	602	578	613	682	715
Energy	534	527	492	433	436	441	457	444	432	451	504	528
1961–62:												
Peak	738	735	699	619	636	642	663	627	602	639	712	748
Energy	557	550	512	450	453	458	475	461	449	469	525	551
1962–63:												
Peak	772	769	731	645	663	670	692	654	627	667	744	783
Energy	582	574	534	468	471	476	494	479	467	488	548	575
1963–64:												
Peak	808	805	765	673	692	700	723	683	654	696	778	820
Energy	608	599	557	487	490	495	515	499	486	508	572	601
1964–65:												
Peak	847	843	801	703	723	732	756	713	683	727	815	859
Energy	636	626	582	507	510	516	538	520	506	529	598	628
1965–66:												
Peak	888	884	839	735	756	766	791	745	713	760	854	901
Energy	666	655	608	528	532	538	561	542	527	552	625	657
1966–67:												
Peak	932	927	880	769	791	802	829	780	745	795	896	946
Energy	698	686	636	551	555	561	586	566	550	576	654	688

IDAHO POWER CO.

New and proposed high voltage transmission lines (230 kilovolts)

	Length	Conductor	Equal spacing
	Miles		*Feet*
1956, 1 circuit A Baker-LaGrande	46.5	795 MCM	24.6
1957, 1 circuit B Brownlee-Baker	50.0±	795 MCM	24.6
1957, 2 circuits C Brownlee-Boise	15.0±	1,431±MCM	24.6
1—1957 1—1959 } 2 circuits D Brownlee-Boise	105.0±	954 MCM	24.6
1958, 1 circuit E Boise-American Falls No. 1 [1]	189.8	715.5 MCM	25.2

[1] Item E—Convert existing 138 kilovolts to 230 kilovolts.

PROPOSED TIE STATIONS

Boise Bench: 230/138 KV. tie transformer 300 MVA; 40 MVA syn condenser.
American Falls: 230/138 KV, tie transformer 400 MVA; 1–60-MVA syn condenser.

JANUARY 17, 1956.

Mr. H. R. MOORE,
Superintendent of Power, Idaho Power Co.,
Boise, Idaho.

DEAR DICK: Thank you very much for the characteristic data for Idaho Power Co.'s Brownlee and Oxbow plants. We will adjust our original studies accordingly and use this data in preparing the additional analysis suggested at our Boise meeting.

Very truly yours,

H. M. MCINTYRE,
Hydraulic Operations Officer.

FEBRUARY 1956.

Mr. H. R. MOORE,
Superintendent of Power,
Idaho Power Co., Boise, Idaho.

DEAR MR. MOORE: We have reviewed our studies of benefits from coordination of Brownlee with the Northwest power pool and as a result have increased the benefits from this coordination. Part of the benefit is attributable to the revised characteristics for the Brownlee project that you sent to us. We were also able to increase the benefit from coordination by delaying Brownlee storage release until later in the year.

Copies of the combined system regulations and revised tables are enclosed. I am also sending copies of this material to the representatives of the Federal Power Commission, Corps of Engineers, and Bureau of Reclamation by a separate letter.

Under minimum year streamflow conditions and coordinated operation Brownlee storage is not withdrawn until after January 1 in either 1961–62 or 1964–65. On the basis of median month hydro withdrawal is started somewhat earlier or on the 1st of October.

You will note that benefits from coordination under 1962–63 installations have increased from 124 average megawatts to 142 average megawatts and the annual loss at Brownlee and Oxbow because of coordinated operation instead of isolated operation amounts to only 3 average megawatts instead of 19 as shown in the original computation. Under minimum year streamflow conditions and 1964–65 installations the benefit has been increased from 167 average megawatts to 181 average megawatts. Similar increases are indicated for these 2 years under median month streamflow conditions. In addition, the increased efficiencies of the Brownlee plant have made possible additional capability to the Idaho Power Co. on an independent operation basis. As an example, under 1962–63 installations and minimum year hydro the surplus is increased from 50 average megawatts to 61 average megawatts.

This data is only a reanalysis of the material included in our original report. We are continuing on with the other suggested studies and will forward them to you as soon as they are completed. We hope to have considerably more of them finished prior to the February 14 meeting. We have advanced far enough along on these other studies that we feel some benefit could be gained if you or members of your staff could come to Portland and discuss them with us prior to the general meeting now scheduled on February 14. Any time between now and then would be satisfactory to us. I might recommend February 13 for this prior meeting so as to combine the two meetings in one trip. Please let me know your wishes so that I may make arrangements for these meetings in our Interior Building, 1001 NE Lloyd Boulevard.

Very truly yours,

H. M. MCINTYRE,
Hydraulic Operations Officer.

IDAHO POWER CO.,
Boise, Idaho, February 15, 1956.

Mr. HENDERSON M. MCINTYRE,
Bonneville Power Administration,
Portland, Oreg.

DEAR MAC: In our discussion yesterday, I agreed to review the figures you used in the study for the present peak and average capacities of our present plants under both median and critical water conditions.

We find that the figures you have used are from the power-pool operating program and have the same source as the ones we ordinarily use. However, there are some small discrepancies, and we feel that it might be better to use the figures that we normally use.

Enclosed are four sheets showing these figures:

1. The peaking capacity under both median and critical water.
2. Energy capacity, median water.
3. Energy capacity, critical water.
4. Energy capacity, system critical.

These figures are, of course, based on historical river flows and, while it might be desirable to have capacities based on depleted flows, this does not seem to be practical, since depletion will have entirely different effects on different plants and, as far as we know, no data are available by which each individual plant's capacity could be adjusted.

Very truly yours,

H. R. MOORE,
Superintendent of Power.

FEBRUARY 23, 1956.

Mr. H. R. MOORE,
Superintendent of Power, Idaho Power Co.,
Boise, Idaho.

DEAR DICK: This will acknowledge receipt of your system capabilities for median and critical and your own system critical water conditions. We will use these in preparing further studies.

Thank you very much for the above data.

Very truly yours,

H. M. MCINTYRE,
Hydraulic Operations Officer.

BONNEVILLE POWER ADMINISTRATION,
Portland, Oreg., April 13, 1956.

Mr. RALPH GALE,
Idaho Power Co.,
Boise, Idaho.

DEAR MR. GALE: Since our last correspondence, we have completed several additional studies on the gain to the Idaho Power Co. system and the area as a result of the construction and operation of the Brownlee, Oxbow, and Hells Canyon projects. In addition, 1 study has been prepared which also includes the proposed Northwest Power Co. plants at Mountain Sheep and Pleasant Valley, and the combined gain to the area of all 5 plants. Not previously circulated to you are copies of our work sheets showing the determination of the main Columbia River system prime, excluding the new Idaho Power Co. and Northwest Power Co. plants on the Snake River.

Our previous discussions with you and representatives of the Corps of Engineers, Federal Power Commission, and Bureau of Reclamation indicated that the incremental method of determining the gain by addition of these projects is a more direct method of measuring the gain than the difference between independent and coordinated operations used in most of our analysis. We are enclosing the following additional worksheets and tables showing the result of these additional studies:

1. Copies of worksheets showing coordinated operation of Brownlee, Oxbow, and Hells Canyon plus Pleasant Valley and Mountain Sheep with the main Columbia River system. These studies are for both minimum year 1936–37 and median month streamflow conditions and installations for the 1962–63 operating year.

2. Copies of main Columbia River system operating studies, 1962–63 and 1964–65 installations.

3. Coordinated and independent operation of Brownlee, Oxbow, and Hells Canyon with the main Columbia River system, based on 1934–35 streamflow conditions. In this instance, six tables have been prepared showing the benefits of coordinated operation over independent operation on both 1962–63 and 1964–65 installations and detailed studies of the effect on the Idaho Power Co. system under both of these conditions.

The measure of benefits or gain with addition of Brownlee, Oxbow, and Hells Canyon on an incremental basis is shown on the following table:

Incremental gain due to addition of Brownlee, Oxbow, and Hells Canyon on coordinated operation basis

[Minimum-year hydro (1936-37)]

	Storage-season capability, in average megawatts	
	1962–63	1964–65
Main Columbia River system only	4,573	4,571
Main Columbia River system plus Brownlee, Oxbow, and Hells Canyon	5,019	5,238
Gain due to addition of new plants	446	663
Generation at Brownlee, Oxbow, and Hells Canyon	396	618
Gain on main Columbia River system	50	45

In order to achieve coordinated operations, a portion of Idaho Power Co.'s estimated summertime firm loads totaling 294,928 megawatt-hours during July and August 1962 and May and June 1963, and 210,744 megawatt-hours during May and June 1965 would have to be made up from main Columbia River secondary during these months. The Idaho Power Co. could, by operating Brownlee storage on an independent basis, serve their summertime loads, but this operation would create a loss in power on the main Columbia system.

Although the annual generation on the 3 Idaho Power Co. plants is slightly lower in 1962–63 by 25,380 megawatt-hours under coordinated operation than under an independent operation, requirements from the main Columbia River system to serve deficits in meeting Idaho Power Co.'s summertime loads exceed this apparent loss many times. Under 1964–65 conditions, the Idaho Power Co.'s computed annual generation is also lower by 50,760 megawatt-hours on the coordinated basis than under an assumed independent operation. There would still be 210,744 megawatt-hours delivered from the Federal system during May and June of that year to meet Idaho Power Co.'s estimated firm load.

One factor not previously evaluated, but mentioned several times during our discussions, is the gain to Brownlee, Oxbow, and Hells Canyon because of streamflow diversity. Since the minimum year on the Snake River is 1934–35, we have prepared a table to show the increase in the Snake River capabilities with 1936–37 streamflow conditions compared with conditions occurring in 1934–35. If the 1936–37 level of generation is to be considered firm load carrying ability, it should be recognized that under 1934–35 streamflow conditions an additional 30 average megawatts would be required from the main Columbia River system under estimated 1962–63 installations and 46 average megawatts for the 1964–65 year. The main Columbia River system increase in energy capabilities are over 1,200,000 kilowatts with 1934–35 streamflow above those under 1936–37 conditions. It is, therefore, certain that the requirements to firm up Brownlee, Oxbow, and Hells Canyon, should 1934–35 conditions reoccur, will be available from the main system. A table illustrating the diversity in capabilities under 1934–35 streamflows and 1936–37 conditions follows:

Gain to Brownlee, Oxbow, and Hells Canyon because of streamflow diversity

[Storage season capability in average megawatts]

Coordinated operation	1962–63	1964–65
Average capability of Brownlee, Oxbow, and Hells Canyon:		
(1) Under 1936–37 hydro conditions	396	618
(2) Under 1934–35 hydro conditions	366	572
Increase with 1936–37 hydro	30	46
Average capability main Columbia River system:		
(1) Under 1936–37 hydro conditions	4,623	4,620
(2) Under 1934–35 hydro conditions	5,840	5,849
Increase with 1934–35 hydro	1,217	1,229

We are also including a table to show the incremental gain to the combined addition of Brownlee, Oxbow, Mountain Sheep, and Pleasant Valley. The gain due to these 4 plants with storage at Brownlee and Pleasant Valley amounts to 1,093 average megawatts with generation at Brownlee, Oxbow, and Mountain Sheep amounting to 1,031 average megawatts making a gain on the main Columbia River system of 62 average megawatts. This situation is indicated in the following table:

Incremental gain due to addition of Brownlee, Oxbow, Mountain Sheep, and Pleasant Valley

[Minimum year hydro (1936-37)]

	Storage season capability (average megawatts)
Main Columbia River system only	4,573
Main Columbia River system plus Brownlee, Oxbow, Hells Canyon, Mountain Sheep, and Pleasant Valley	5,666
Gain due to addition of new plants	1,093
Generation at Brownlee and Oxbow	396
Generation at Mountain Sheep and Pleasant Valley	635
Total	1,031
Gain on main Columbia River system	62

The gain of 62 average megawatts on the main Columbia River system is based on 1 million acre-feet at Brownlee and 530,000 acre-feet at Pleasant Valley. The additional gain due to Pleasant Valley storage of 12 average megawatts or 62 average megawatts, the gain from the combined Brownlee and Pleasant Valley storage less 50 average megawatts, the gain from Brownlee storage only is not directly proportional to the storages. This is primarily due to the release of Pleasant Valley storage at the end of the storage season resulting in the necessity of earlier storage withdrawal on the Federal system to equalize capabilities with loads. As a result the average head during the storage season on Federal system storage projects is lower and the gain from Pleasant Valley storage is offset by a lower generation from streamflow at Federal system storage projects. The at-site gain in generation at Pleasant Valley from maintaining a high reservoir as long as possible makes this operation best for the overall coordination.

Copies of the additional studies and explanations will be sent to representatives of the Federal Power Commission, Corps of Engineers, and the Bureau of Reclamation.

Discussions of these tables and studies can be taken up at the next meeting, tentatively scheduled for May 2 and 3. This meeting either in Portland or Boise will be agreeable with us. Please let us know your desire.

Very truly yours,

MILLER EVANS,
Acting Director, Operations and Maintenance.

IDAHO POWER CO.,
Boise, Idaho, July 12, 1956.

DR. WILLIAM A. PEARL,
Administrator, Bonneville Power Administration,
United States Department of the Interior, Portland, Oreg.

DEAR DR. PEARL: As you know, representatives of our company and members of your engineering staff have been working together for the past 6 months to determine the benefits to the overall northwest power pool supply which will result from the integration of our recently authorized Brownlee, Oxbow, and Hells Canyon projects with the Federal system. I understand that these studies are nearing completion, and that we will shortly begin discussions with your staff as to the details of an agreement which will insure the achievement of these benefits.

Inasmuch as this will undoubtedly take some time and because of the special conditions relative to interchange and/or purchase of energy, it seems proper for us to request that pending completion of the integration above the Idaho Power Co. be listed in paragraph 3 (b) (3) of the proposed contract for the sale of priority interruptible power, draft dated June 18, 1956, and there be made available to the Idaho Power Co. the same benefits to which the company would be entitled if it were presently a customer of the Bonneville Power Administration under the 20-year agreement. Will you be kind enough to advise me regarding your reaction to this suggestion.

Cordially,

T. E. ROACH.

SEPTEMBER 5, 1956.

Mr. RALPH GALE,
Vice President, Idaho Power Co.,
Boise, Idaho.

DEAR MR. GALE: Enclosed are three copies each of revised regulations for the Brownlee, Oxbow, and Hells Canyon coordinated operations for the main Columbia River system. The regulations include installed capacities for both the 1962–63 and 1964–65 expected conditions. Studies are also included for the 1962–63 condition, including Mountain Sheep and Pleasant Valley. The studies for Brownlee, Oxbow, and Hells Canyon are made on three different streamflow conditions: 1934–35, 1936–37, and median month. The studies including Mountain Sheep and Pleasant Valley were not made for the 1934–35 streamflow conditions.

All these analyses reflect the increased design capacities at Brownlee and Oxbow and equivalent increase at the Hells Canyon project to provide a balanced 3-dam plan. These increased installed capacities reflecting enlarged turbine capacities are as follows:

[Megawatts]

Plant	Nameplate rating	Peak capacity
Brownlee	360	414
Oxbow	190	226
Hells Canyon	350	400

The coordinated operations on the basis of the larger turbine and generator capacities increase the combined output under 1936–37 streamflow conditions about 4 average megawatts. The Idaho Power Co. system realized a gain of 8 average megawatts and the main Columbia River system a loss of 4, making a net gain of 4 average megawatts. Under 1964–65 installations and 1936–37 water, the net gain amounted to only 2 average megawatts from an increase of 8 megawatts on the Idaho Power Co. plants and a loss of 6 megawatts on the main Columbia River system. Similar gains of slightly higher magnitude are made under median month and 1934–35 streamflow conditions.

It was also necessary to revise the coordinated operations including Pleasant Valley and Mountain Sheep. Under these revised operations the incremental gain due to the addition of Brownlee, Oxbow, Mountain Sheep, and Pleasant Valley was increased by 3 megawatts under 1936–37 water conditions. This resulted from a gain on the main Columbia River system of 6 megawatts and a corresponding loss on the combined Snake River plants of 3 average megawatts.

The differences between studies including Brownlee, Oxbow, and Hells Canyon previously sent to you and the revised studies are shown on the table attached.

Very truly yours,

H. M. MCINTYRE,
Hydraulic Operations Officer.

Comparison of combined capabilities under increased plant capacities for Brownlee, Oxbow, and Hells Canyon storage season capabilities

	Average megawatts	
	1962–63	1964–65
1936–37 hydro:		
Oxbow, Brownlee, Hells Canyon:		
Previous data	396	618
Revised study	404	626
Gain	8	8
Main Columbia River system:		
Previous data	4,623	4,620
Revised study	4,619	4,614
Gain of (loss)	(4)	(6)
Total gain	4	2
1934–35 hydro:		
Oxbow, Brownlee, Hells Canyon:		
Previous data	366	572
Revised study	373	575
Gain	7	3
Main Columbia River system:		
Previous data	5,840	5,849
Revised data	5,846	5,849
Gain or (loss)	6	
Total gain	13	3
Median month hydro:		
Oxbow, Brownlee, Hells Canyon:		
Previous data	432	688
Revised data	450	710
Gain	18	22
Main Columbia River system:		
Previous data	5,398	5,398
Revised data	5,393	5,395
Gain or (loss)	(5)	(3)
Total gain	13	19

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Estimated benefits under proposed BPA and Idaho Power Co. storage exchange agreement

Contract year, May to April	Streamflow conditions	Idaho Power Co.								Bonneville Power Administration	
		Average annual capability		Gain from storage exchange							
		Independent operation	Assured capability under proposed agreement	Total amount stored	Total available for return	Credited to exchange account		Average annual capability realized under agreement	Gain from agreement	Net amount of storage returned	Gain from storage agreement [1]
		Megawatts	*Megawatts*	*Megawatt-hours*	*Megawatt-hours*	*Megawatt-hours*	*Megawatts*	*Megawatts*	*Megawatts*	*Megawatt-hours*	*Megawatts*
1962–63: Brownlee and Oxbow	1936–37	332	332	382, 512	382, 512	153, 005	17. 5	349. 5	17. 5	229, 507	26. 2
	1934–35	300	332	571, 896	295, 272	118, 109	13. 5	345. 5	45. 5	177, 163	20. 2
	Median	389	332	123, 048	123, 048	49, 220	5. 6	394. 6	5. 6	73, 828	8. 4
1964–65: Brownlee, Oxbow, and Low Hells Canyon.	1936–37	519	516	620, 328	620, 328	248, 131	28. 3	544. 3	25. 3	372, 197	42. 5
	1934–35	471	516	776, 784	544, 296	217, 718	24. 8	540. 8	69. 8	326, 578	37. 3
	Median	610	516	175, 648	175, 648	70, 260	8. 0	618. 0	8. 0	105, 388	12. 0

[1] In addition to the gain under the storage exchange agreement there also is a gain at Federal downstream plants from the release of Brownlee storage. This gain in megawatts is as follows:

	1962–63	1964–65
1936–37	46	43
1934–35	38	38
Median	46	49

NOVEMBER 14, 1956.

Mr. H. R. MOORE,
Idaho Power Co., Boise, Idaho.

DEAR MR. MOORE: Attached are the derivations of streamflows requested by Mr. Glenn Hall when I was in Boise several weeks ago. They are the net power flows for Brownlee, Hells Canyon, and Oxbow projects used in our power operation studies to determine benefits from coordination of the Brownlee, Oxbow, and Hells Canyon projects with the Federal system.

Subsequent to the time these studies were made new estimates of Snake River irrigation depletions have been made by the Water Management Subcommittee of the Columbia Basin Inter-Agency Committee. These revised depletion adjustments are incorporated in streamflow derivations for the Northwest Utilities Conference Committee report currently being prepared. We feel that use of the new depletion data would not materially change the results of the studies previously submitted to you since the principal benefits from integration of Brownlee project with the Federal system are due to the added storage.

We regret having delayed sending you these streamflow data and will be glad to supply any additional information we have which you feel will be useful in your studies.

Very truly yours,

H. M. MCINTYRE, *Hydraulic Operations Officer.*

Net power flows for Brownlee, Hells Canyon, and Oxbow projects—1960–61 through 1964–65 levels of development—Average monthly discharge in second-feet

Year and month	Observed flow, Snake River at Oxbow, Oreg. (1)	Evaporation losses from Brownlee Reservoir (2)	Snake River irrigation depletion adjustments (3)	Net power flows of Brownlee, Hells Canyon, and Oxbow (4)
1934–35:				
July	7,430	−110	870	8,190
August	7,420	−110	1,450	8,760
September	8,010	−60	2,690	10,640
October	9,240	−20	1,250	10,470
November	10,400		440	10,840
December	10,570		310	10,880
January	10,750		60	10,810
February	10,510		−540	9,970
March	11,550		310	11,860
April	17,870		−1,330	16,540
May	18,150	−50	−4,850	13,250
June	17,440	−80	−5,330	12,030
1936–37:				
July	8,440	−110	750	9,080
August	8,590	−110	1,500	9,980
September 1–15	9,610	−60	2,440	11,990
September 16–30	10,420	−60	2,440	12,800
October	10,620	−20	1,560	12,160
November	11,110		1,560	12,670
December	10,860		240	11,100
January	10,220		110	10,330
February	12,000		20	12,020
March	14,300		−550	13,750
April 1–15	20,480		−5,930	14,550
April 16–30	23,120		−5,930	17,190
May	19,410	−50	−4,810	14,550
June	13,840	−80	−2,050	11,710
Median-month year:				
July	10,060	−110	440	10,390
August	8,590	−110	1,130	9,610
September	10,180	−60	2,280	12,400
October	12,860	−20	960	13,800
November	13,600		310	13,910
December	14,600		−320	14,280
January	14,270		−400	13,870
February	16,100		−730	15,370
March	19,650		290	19,940
April	25,430		−2,050	23,380
May	26,650	−50	−3,780	22,820
June	25,040	−80	−3,300	21,660

See explanations of columns (1), (2), (3), (4) of table on following page.

EXPLANATION OF COLUMNS

(1) From Geological Survey discharge records. Median-month year flows are selected from the 25-year period, July 1925 through June 1950.
(2) Reservoir evaporation losses are based on normal pool reservoir area and estimated average monthly net evaporation rates.
(3) Snake River irrigation depletion adjustments are the sum of adjustments for present development (1948) as shown in Report on Snake River Streamflow Depletion prepared by the Columbia Basin Interagency Committee, Technical Subcommittee for Operating Plan, May 1951, and additional adjustments to 1962–63 level based on USBR tabulation, "Estimated flow, Snake River at Oxbow, Oreg., with 367,000 acres of new land development, primarily ground water," dated May 20, 1952.
(4) The algebraic sum of columns (1), (2), and (3).

DRAFT PROPOSAL

Prepared by Bonneville Power Administration, April 1957

IDAHO

1. *Term of Agreement.* Subject to the other provisions contained herein, each of the provisions of this agreement shall be effective for the term of twenty (20) years commencing at the time Brownlee dam is completed and ready for regular operation.

2. *Definitions.*

(a) The term "storage drawdown period" for the purpose of this agreement means the period commencing September 16 in each year, in the term hereof, through April 15 in the immediately succeeding year.

(b) The term "storage refill period" for the purpose of this agreement means the period April 16 through September 15 in each year, in the term hereof.

(c) The term "system load requirements" means the system load requirements of the Company, excluding therefrom the sales of nonfirm hydroelectric energy by the Company to other utilities.

(d) The term "maximum hourly capability" of the Company's plants shall be deemed to be _____ kilowatts until changed as provided in section ____ and thereafter shall be deemed to be the capability as so determined.

3. *Exchange of Supplementary Excess Energy.*

(a) The Government shall make available to the Company at the point or points of delivery specified in and subject to the applicable terms of said exchange agreement (Contract No. 14–03–001–11493), during each day in each storage refill period during the term hereof and the Company shall accept from the Government, electric energy in the amount of the excess of the Company's system load requirements for such day over the actual output of the Company's generators for such day and such generators are to be operated in a manner that will assure that Brownlee reservoir will be full by September 15 of each year in the term hereof: *Provided, however,* That the Administrator may, but shall not be obligated to make available to the Company during any refill period electric energy in excess of 432,000,000 kilowatt-hours.

(b) The Government shall not be obligated to make electric energy available to the Company as provided in subsection (a) of this section during any hour at an integrated demand for such hour in excess of the smaller of:

(1) the number of kilowatts obtained by subtracting the actual output, in kilowatts of the Company's plants during such hour, from the maximum hourly capability of such plants (as defined in section 2 hereof), or

(2) the number of kilowatts specified by the Administrator if he determines that the capacity of the transmission and/or transformation facilities used by the Government in making deliveries hereunder is insufficient to enable the Government to deliver, during such hour, the amount of electric energy requested by the Company, together with the firm requirements of all other customers of the Government which are served by using a part or all of such facilities.

(c) If the Administrator, at any time or times after July 1, 1959, determines from schedules prepared by him that the total amount of power available for his disposition during any period beginning after July 1, 1965, will not be sufficient to supply the Government's other commitments he shall give written notice to the Company specifying the amount of the proposed reduction in the amount of kilowatt-hours specified in subsection (a) of this section, and the period during which such reduction is to be effective, but such period shall not begin before the later of: (i) July 1, 1965, or (ii) five (5) years from the time such notice is given: *Provided, however,* That such reduction shall not reduce the amount specified in subsection (a) of this section below 313,000,000 kilowatt-hours.

(d) The Company shall, at the request of the Government, make available to the Government, during each day in each storage release period in the term hereof when the balance in the supplementary exchange account (hereinafter defined) is in favor of the Government, at the point of delivery specified in and subject to the applicable terms and conditions of, said exchange agreement (Contract No. 14–03–001–11493), electric energy at a rate up to the Company's total system generation in excess of its system load requirements: *Provided, however,* That the Company shall not be obligated to make available such electric energy in amounts in excess of the capacity of the interconnecting transmission facilities of the parties hereto, or to generate electric energy at Brownlee plant in such amounts that discharge of water from storage in Brownlee reservoir exceeds the amounts usable to generate electric energy at the Company's Oxbow plant (when constructed and ready for regular operation).

4. *Supplementary Exchange Account and Settlement.*

(a) A supplementary exchange account will be established and maintained by the Administrator and he shall record therein the credits and debits to be made to the Government under this agreement. No credits or debits will be made in such account unless the deliveries made hereunder are made in accordance with a prior agreement of the dispatchers of the parties hereto and logged and recorded as such by the proper operator of such parties.

(b) The amount of electric energy delivered by the Government to the Company, in accordance with subsection 3 (a) hereof, will be credited to the Government in the supplementary exchange account; *provided, however,* that if the balance due the Government in such account exceeds 313,000,000 kilowatt-hours at the end of the storage refill period, the excess of such balance over 313,000,000 kilowatt-hours shall be credited to the Government in the exchange account established by said Contract No. 14–03–001–11493, and the Government shall be debited in the supplementary exchange account with the amount of such excess.

(c) Subject to the provisions of subsection (g) of this section, on September 16 of each year during the term hereof, there shall be debited against the Government in the supplementary exchange account an amount determined by subtracting from credits entered in said account up to 313,000,000 kilowatt-hours, for the deliveries made by the Government to the Company for such year in accordance with subsection 3 (a) hereof, an amount obtained by dividing the above-mentioned credits by one and four-tenths (1.4).

(d) The amount of electric energy delivered to the Government by the Company in accordance with subsection (d) of section 3 hereof, will be debited against Government in the supplementary exchange account.

(e) During any month in each storage release period when the balance in the storage energy account is in favor of the Government and the Company desires to purchase a portion of such electric energy to serve its load requirements for such month, the Company will notify the Administrator in writing at least five (5) days prior to the beginning of such month specifying the amount of electric energy it wishes to purchase during such month from said supplementary exchange account. Upon receipt of such notice from the Company, the Administrator's dispatchers shall notify the Company's dispatchers of the amount of such electric energy in said supplementary exchange account, if any, the Government is willing to sell to the Company. The electric energy purchased by the Company in accordance with this subsection shall be credited to the Government in the exchange energy account established by said Contract No. 14–03–001–11493 and debited against the Government in said supplementary exchange account.

(f) If the balance in the supplementary exchange account is in favor of the Government when water is spilled from Brownlee reservoir or if water is released from Brownlee at the request of the Corps of Engineers, for the purpose of providing space for flood control, the Administrator will debit the Government in the supplementary exchange account with the number of kilowatt-hours, as determined by the Administrator, which is the lesser of: (1) the number of kilowatt-hours which could otherwise have been generated from the water so spilled or released, or (2) such balance then remaining in the supplementary exchange account.

(g) If a change in the rate specified in Bonneville Wholesale Energy Rate Schedule H–3 (attached hereto as Exhibit A) is effected by an amendment of such schedule or the adoption of a new rate schedule superseding said rate schedule, and if such amended or new rate schedule is substituted, as provided in said Contract No. 14–03–001–11493, for the rate schedule attached thereto as Exhibit A, the debit to be made against the Government in the supplementary exchange account as provided in subsection (c) of this section, after such change was effected, shall be computed as provided in said subsection (c) after substituting,

for the figure "one and four-tenths (1.4)" therein mentioned, the sum of one (1) plus the quotient obtained by dividing one (1) mill by the number of mills and fraction thereof to which such rate was changed.

APRIL 18, 1957.

Mr. A. C. INMAN,
Idaho Power Co., Boise, Idaho.

DEAR MR. INMAN: Attached are copies of the charts we discussed in Dr. Wm. A. Pearl's office in connection with the BPA-Idaho Power Co. storage contract. The charts show the deficit of the Idaho Power Co. in red and the surplus in blue. Also plotted on the charts are the Oxbow and Brownlee monthly generation in the critical year 1936–37 and the annual average.

The data for these charts were taken from the load resource studies submitted to you and discussed in previous meetings.

No attempt has been made to reregulate Brownlee storage to provide a more uniform surplus on the Idaho Power Co.'s system.

Very truly yours,

H. M. MCINTYRE,
Hydraulic Operations Officer.

IDAHO POWER CO.,
Boise, Idaho, May 21, 1957.

Dr. WILLIAM A. PEARL,
Administrator, Department of the Interior,
Bonneville Power Administration, Portland, Oreg.

DEAR DR. PEARL: For the purpose of recording the progress of our conferences in regard to an integration agreement, we have prepared the attached memorandum, which indicates our impression of the conclusions reached during the course of the meeting. If the contents of the memorandum are not in accord with your impressions of the meeting, I would appreciate hearing from you.

We are not able to supply you with any new information which has had enough consideration by our engineers to be in suitable form to present at this time. However, we will have some additional ideas to present to you at our meetings on May 28.

Yours very truly,

R. E. GALE, *Vice President.*

MEMORANDUM ON BONNEVILLE POWER ADMINISTRATION—IDAHO POWER CO. MEETING ON INTEGRATION AGREEMENT, MAY 14, 1957

The following men met in Portland on May 14, 1957:

Bonneville Power Administration:	Idaho Power Co.:
Dr. Wm. A. Pearl	R. E. Gale
Miller Evans	H. R. Moore
Lane Morthland	F. C. Harvey
Jack Joliffe	R. A. Hogg
H. M. McIntyre	

This meeting was for the purpose of establishing the principal benefits which might accrue to the Bonneville Power Administration and Idaho Power Co. systems in the event that integration was accomplished under a suitable contract. The construction of an integration contract was outlined to consist of three steps: (1) agreement on operating and engineering procedure to obtain integration benefits, (2) agreement on equitable division of benefits, and (3) stating the agreements of points (1) and (2) in a legal document in a manner consistent with the laws governing the contracting parties.

Prior to this meeting, studies had been made and presented to groups consisting of representatives from the Bonneville Power Administration, Army Engineers, Bureau of Reclamation, Federal Power Commission, Pacific Northwest Power Co. and Idaho Power Co. Studies prepared by Mr. McIntyre were used for comparison purposes and determination of integration benefits. The studies consisted of calculations as to the possible firm power capability of the two systems operated independently under water conditions which would represent the most adverse period for the northwest power pool (1936–37), the BPA system (1936–37), and the Idaho Power Co. (1934–35), and under median month water conditions.

Similar studies were also made of the two systems operating in coordination under the same water conditions as above. The objective of the study in every

case was to operate the hydro generating facilities with natural streamflow and storage water available to supply the maximum firm load capability under adverse water conditions. There was agreement among all parties that the methods used in the studies were appropriate.

In analyzing and comparing the studies, it was determined that integrated operation (the two systems operating together with the plants assumed in the study) would result in approximately 43 megawatts of additional firm power on the Bonneville system because of the coordinated operation of the Brownlee project. The Idaho Power Co. would be able to increase its winter load carrying capability approximately 119 megawatts (table VII, 1–25–56; table XI, 1–27–56). The operation of Brownlee storage for coordinated operation would result in a decrease of about 6 megawatts of average annual generation on the Idaho system. These figures were accepted by the group as being representative of the magnitude of the benefits of coordinating the generating resources.

In addition to these benefits, it was recognized by the groups that the characteristic of Idaho's load was to have a high summer energy requirement and low winter energy requirement, whereas the present load pattern of the BPA system and other Northwest systems reflects a high winter energy requirement and a low summer energy requirement. It was also recognized by the groups that, because of the nature of the Columbia River runoff and the location of the plants operated by BPA, there is a substantial surplus of summer energy on the BPA system.

The Idaho Power Co., through its present contractual arrangements with other members of the Northwest Power Pool, can obtain the energy necessary to enable the company to increase its winter firm load carrying capability in the same amount (approximately 119 megawatts) as it would be able to under an integration agreement with BPA. Under this type of operation, however, the operation of Brownlee storage would not necessarily be in coordination with the Bonneville system, and the Bonneville system would not obtain the approximate 43 megawatts of increased firm load carrying capability. Consequently, it appears to the interest and advantage of BPA to enter into a coordination agreement for some part of the increased firm power capability, and the advantage to the Idaho Power Co. would be in a possible lower cost of energy needed to increase its firm load carrying capability to the point indicated in the studies under coordinated operation.

In the discussion it appeared that there was agreement on the procedures necessary to obtain the above benefits as the first step necessary in constructing a contract. The division of the benefits and legal aspects appeared to be the most difficult problems. However, it was pointed out that, unless these two problems can be solved, full integration of the Northwest power generating systems cannot be accomplished.

The meeting adjourned for the parties to endeavor to work out a suitable and equitable settlement that might be incorporated in a coordination agreement.

R. A. HOGG.

COORDINATION OF BROWNLEE RESERVOIR

Critical year energy interchange to maintain allocation of 405 megawatts of prime power to Idaho Power Co.

[In megawatts]

Month	Total Idaho load	Existing Idaho resources	Residual load	Allocated surplus		Allocated to Idaho		Brownlee and Oxbow capability	Idaho interchange			
									In		Out	
July	582	260	322	150	125	472	447	266	206	181	----	----
August	574	261	313	150	125	463	438	292	171	146	----	----
Sept. 1–15	534	277	257	150	125	407	382	351	56	31	----	----
Sept. 16–30	534	277	257	150	125	407	382	375	32	7	----	----
October	468	221	247	150	125	397	372	356	41	16	----	----
November [1]	471	220	251	150	125	401	376	372	29	4	----	----
December [1]	476	221	255	150	125	405	380	326	79	54	----	----
January [1]	494	215	279	150	125	429	404	324	105	80	----	----
February [1]	479	203	276	150	125	426	401	512	----	----	86	111
March	467	226	241	150	125	391	366	526	----	----	135	160
Apr. 1–15	488	276	212	150	125	362	337	452	----	----	90	115
Apr. 16–30	488	276	212	150	125	362	337	174	188	163	----	----
May	548	288	260	150	125	410	385	143	267	242	----	----
June	575	244	331	150	125	481	456	231	250	225	----	----
Storage season average	----	----	255	150	125	405	380	404	39	23	38	47

[1] Storage release season.

1936–37 streamflow—1962–63 level of operations—costs and nominal prime capability

Plant	Capability of initial base system, megawatts		Capability of coordinated system, megawatts		Incremental capability, megawatts		Incremental installation		Incremental annual cost	
	Nominal prime	February peak [1]	Nominal prime	April peak [1]	Nominal prime	Critical peak	Number of units	Nameplate rating, megawatts	Dollars per kilowatt	$1,000
Non-Federal Columbia River plants [2]	724	1,165	724	1,165	0	0	0	0		
Brownlee			282	253	282	253	4.00	360.4		[3] 7,560
Oxbow			122	226	122	226	4.00	190.0		[3] 2,880
Subtotal			404	479	404	479	8.00	550.4		10,440
Federal plants with fixed installation:										
Hungry Horse	212	167	212	146	0	−21	0	0		0
Albeni Falls	22	13	22	15	0	2	0	0		0
Grand Coulee	1,267	1,714	1,258	1,416	−9	−298	0	0		0
Bonneville	404	570	413	570	9	0	0	0		0
Subtotal	1,905	2,464	1,905	2,147	0	−317	0	0		0
Other Federal plants:										
Chief Joseph	710	[4] 937	710	[4] 1,002	0	65	0.88	57.0	[5] 5.39 6.96	310 400
McNary	[6] 524	[4] 692	540	[4] 763	16	71	.88	62.0	[5] 6.54 12.40	410 770
The Dalles	[6] 566	[4] 748	583	[4] 824	17	76	.85	66.0	[5] 5.53 7.96	370 530
Ice Harbor	[6] 139	[4] 184	157	[4] 222	18	38	.37	33.0	[5] 6.23 10.56	210 350
Subtotal	1,939	[4] 2,561	1,990	[4] 2,811	51	250		218.0		1,300 2,050
Total Federal	3,844	5,025	3,895	4,958	51	−67		218.0		1,300 2,050
Total Federal+Brownlee and Oxbow			4,299	5,437	455	412		768.4		11,740 12,490
Total	4,568	[7] 6,190	5,023	[7] 6,602	455	412		768.4		11,740 12,490

[1] Month with minimum surplus of peaking capability.
[2] Kerr, Thompson Falls, Noxon Rapids, Cabinet Gorge, Box Canyon, and Rock Island. Annual cost factor of 12 percent applied to capital costs given in Idaho Power Co. data sheets of August 1956 as follows: Brownlee, $63,000,000 and Oxbow, $24,000,000.
[4] Peaking requirement distributed on a basis of uniform plant factor.
[5] Does not include joint costs.
[6] Reduced an aggregate of 5 megawatts by incidental effects of Brownlee.
[7] Required peaking for the integrated system. Equals peak load in critical month plus average energy surplus over the storage release period.

$$\frac{2,050}{12,490}\times 455 = 75$$

$$\frac{10,440}{12,490}\times 455 = \frac{380}{455}$$

Fact Sheet on Idaho-BPA Coordination Studies

Idaho Power Co.

INSTALLATIONS

	Nameplate rating	Peak capability
	Kilowatts	*Kilowatts*
Present system	347,550	365,210
Brownlee	360,400	414,400
Oxbow	190,000	[1] 226,000
Hells Canyon	341,000	[2] 400,000
Total	1,238,950	1,405,610

STORAGE FACILITIES

Brownlee storage:	
Acre-feet	1,000,000
SFD	504,000

STORAGE EQUIVALENTS [4]

1,000,000 acre-feet of Brownlee storage through:	
Idaho Power Co. plants:	*Kilowatt-hours*
Brownlee	212,444,500
Oxbow	101,058,800
Hells Canyon	183,456,800
Total	496,960,100
Federal plants:	
Ice Harbor	83,609,800
McNary	76,339,400
The Dalles	76,339,400
Bonneville	52,104,600
Total benefit to Federal plants	288,393,200

INSTALLATION SCHEDULES [3]

	Unit	Nameplate rating	Dates of installation
		Kilowatts	
Brownlee	1	90,100	October 1958.
	2	180,200	November 1958.
	3	270,300	December 1958.
	4	360,400	January 1959.
Oxbow	1	47,500	May 1961.
	2	95,000	June 1961.
	3	142,500	July 1961.
	4	190,000	August 1961.
Hells Canyon	1	68,200	April 1964.
	2	136,400	May 1964.
	3	204,600	June 1964.
	4	272,800	July 1964.
	5	341,000	August 1964.

	Kilowatt-hours	With Federal plants (kilowatt-hours)
Brownlee	212,444,500	500,837,700
Brownlee and Oxbow	313,503,300	601,896,500
Brownlee, Oxbow, and Hells Canyon	496,960,100	785,353,300

[1] The revised Oxbow peaking capability of 226,000 kilowatts, per letter to J. P. Jolliffe on coordination of Idaho Power Co. and Northwest Power Co. middle Snake River plants by H. M. McIntyre, dated May 18, 1956.

[2] Hells Canyon peaking capability was estimated to coincide with the revised Oxbow peaking capability.

[3] Revised installation schedule, July 22, 1957.

[4] Based on coordinated operation of Brownlee Reservoir, 1964–65, 1936–37 hydro, dated June 1, 1956. H/K used for the run of the river dams are as follows:

Plants:	*H/K*
Oxbow	8.34
Hells Canyon	15.14
Ice Harbor	6.90
McNary	6.30
The Dalles	6.30
Bonneville	4.30

COORDINATION AND INDEPENDENT OPERATION

[In megawatts]

Idaho Power Co.	1936-37		1934-35		Median month	
	Nominal prime [5]	Annual average	System prime [6]	Annual average	Storage season [6]	Annual average
1962-63:						
Coordinated operation: [7]						
Present system	230	234	208	209	250	252
Brownlee	282	232	252	212	306	278
Oxbow	122	102	114	95	144	133
Total	634	568	574	516	700	663
Independent operation: [8]						
Present system	230	234	208	209	250	252
Brownlee	215	229	190	207	213	262
Oxbow	101	103	90	93	118	127
Total	546	566	488	509	581	641
Gain	88	2	86	7	119	22
1964-65:						
Coordinated operation: [9]						
Present system	230	234	208	209	250	252
Brownlee	282	232	252	212	306	278
Oxbow	122	102	114	95	144	133
Hells Canyon	222	184	206	172	260	242
Total	856	752	780	688	960	905
Independent operation: [10]						
Present system	230	234	208	209	250	252
Brownlee	217	232	194	209	207	252
Oxbox	100	102	90	93	122	127
Hells Canyon	182	185	165	169	222	231
Total	729	753	657	680	801	862
Gain	127	−1	123	8	159	43

[5] Nominal prime for storage-control season, Sept. 16 through Apr. 15.
[6] System average for storage-control season, September through April.
[7] Based on coordinated operation of Brownlee Reservoir, 1962-63, 1936-37, 1934-35, and median-month hydro, dated May 31, 1956, June 27, 1956, and June 13, 1956, respectively.
[8] Based on Idaho Power Co. 1962-63 independent operations, 1936-37, 1934-35, and median-month hydro, dated Jan. 26, 1956, Mar. 14, 1956, and Jan. 20, 1956, respectively.
[9] Based on coordinated operation of Brownlee Reservoir, 1964-65, 1936-37, 1934-35, and median-month hydro, dated June 1, 1956, July 6, 1956, and June 15, 1956, respectively.
[10] Based on Idaho Power Co. 1964-65 independent operations, 1936-37, 1934-35, and median-month hydro, dated Jan. 27, 1956, Mar. 14, 1956, and Jan. 27, 1956, respectively.
[11] Based on NWUCC analysis without Idaho Power Co. Snake River plants, 1962-63, 1936-37, and 1934-35 hydro, dated Jan. 26, 1956, and Mar. 20, 1956, respectively.
[12] Based on NWUCC analysis without Idaho Power Co. Snake River plants, 1964-65, 1936-37, and 1934-35 hydro, dated Jan. 26, 1956, and Mar. 22, 1956, respectively.
[13] Estimated from NWUCC analysis, 1962-63 and 1964-65, median-month hydro, dated Oct. 6 and 7, 1955, respectively, by deducting the downstream storage benefits from Brownlee Reservoir of 49 megawatts.

IDAHO POWER CO. WITH COORDINATION OF BROWNLEE RESERVOIR

Critical year energy interchange—1962–63 loads and resources

[Megawatts]

Month	Existing Idaho resources	Brownlee and Oxbow capability	Total Idaho resources	Estimated Idaho load	Idaho requirements	Storage interchange		Other interchange		Idaho surplus
						In [1]	Out [2]	In	Out	
July	260	266	526	582	56	143				87
August	261	292	553	574	21	105		3		87
Sept. 1–15	277	351	628	534	−94			−7		87
16–30	277	375	652	534	−118		31			87
October	221	356	577	468	−109		22			87
November	220	372	592	471	−121		34			87
December	221	326	547	476	−71	16				87
January	215	324	539	494	−45	42				87
February	203	512	715	479	−236		150			86
March	226	526	752	467	−285		199			86
Apr. 1–15	276	452	728	488	−240		154			86
16–30	276	174	450	488	38	124				86
May	288	143	431	548	17	103				86
June	244	231	475	575	100	186				86
Storage season average		404	630	481	−149	8	71			87

[1] 438,906,000 kilowatt-hours over the refill season which is 1.4x313,503,000 kilowatt-hours.
[2] 313,503,000 kilowatt-hours over the storage release season net.

Median month year energy interchange—1962–63 loads and resources

[Megawatts]

Month	Existing Idaho resources	Brownlee and Oxbow capability	Total Idaho resources	Estimated Idaho load	Idaho requirements	Storage interchange		Other interchange		Idaho surplus
						In [1]	Out [2]	In	Out	
July	269	305	574	582	8	191				183
August	268	282	550	574	24	207				183
September	259	363	622	534	−88	72				160
October	237	404	641	468	−173		13			160
November	246	437	683	471	−212		52			160
December	246	510	756	476	−280		120			160
January	264	526	790	494	−296		136			160
February	269	486	755	479	−276		116			160
March	273	420	693	467	−227		67			160
April	306	449	755	488	−267					267
May	295	502	797	548	−249					249
June	308	251	559	575	16	198				182
Storage season average	256	450	706	484	−222					

[1] 438,906,000 killowatt-hours over the refill season which is 1.4×313,503,000 kilowatt hours.
[2] 313,503,000 killowatt-hours net over the storage release season.

Integration benefits if Idaho receives energy for filling and holding Brownlee storage with prepayment of service charge critical year storage season—1962–63 loads and resources

[Megawatts]

	1936–37	1934–35
Idaho Power Co.:		
Isolated operation:		
Brownlee	215	207
Oxbow	101	93
Present system	230	209
Bureau of reclamation surplus	−4	−4
Total	542	505
Coordinated operation	568	600
Gain	26	95
United States Columbia River Power System:		
Isolated operation	3,844	4,845
Coordinated operation	3,895	4,886
Gain in generation	51	41
Integration energy from Idaho	63	[1] −5
Total gain	114	36

[1] Reduced by energy necessary to hold Idaho to its level of capability in the pool critical year.

Energy interchange with 1934–35 hydro—1962–63 loads and resources

[Megawatts]

Month	Existing Idaho resources	Brownlee and Oxbow capability	Total Idaho resources	Estimated Idaho load	Idaho requirements	Storage interchange		Other interchange in [3]	Idaho surplus
						In [1]	Out [2]		
July	232	240	472	582	110	100	----------	97	87
August	216	257	473	574	101	92	----------	96	87
September	179	312	491	534	43	71	----------	59	87
October	198	307	505	468	−37	----------	9	59	87
November	206	318	524	471	−53	----------	25	59	87
December	203	319	522	476	−46	----------	18	59	87
January	203	317	520	494	−26	2	----------	59	87
February	189	413	602	479	−123	----------	95	59	87
March	192	527	719	467	−252	----------	223	58	87
April	189	465	654	488	−166	----------	137	58	87
May	205	120	325	548	223	214	----------	96	87
June	237	139	376	575	199	190	----------	96	87
Storage season average	195	378	567	485	−82	9	63	----------	----------

[1] 438,906,000 kilowatt-hours over the refill season which is 1.4×313,503,000 kilowatt-hours.
[2] 313,503,000 kilowatt-hours net over the storage release season.
[3] Results in net receipts by Idaho of 750,891,000 kilowatt-hours for the year.

Integration benefits if Idaho receives energy for filling and holding Brownlee storage with prepayment of service charge critical year storage season—1962–63 loads and resources

[Megawatts]

	1936–37 [1]	1934–35 [2]
Idaho Power Co.:		
Isolated operation:		
Brownlee	215	207
Oxbow	101	93
Present system	230	209
Bureau of Reclamation surplus	−4	−4
Total	542	505
Coordinated operation	568	600
Gain	26	95
United States Columbia River power system:		
Isolated operation	3,844	5,012
Coordinated operation	3,895	5,064
Gain in generation	51	52
Integration energy from Idaho	63	[3] −5
Total gain	114	47

[1] Critical season is Sept. 16 through Apr. 15.
[2] Critical season is Sept. 1 through Apr 30 for United States-Columbia River power system and entire year for Idaho Power Co.
[3] Reduced by energy necessary to hold Idaho to its level of capability in the pool critical year.

Mainstem, Columbia River system

[Megawatts]

	1936–37 nominal prime [3]	1934–35 storage season [6]	Median month, storage season [6]
1962–63:			
Columbia River system without Brownlee and Oxbow [11]	4,573	5,808	[13] 5,347
Columbia River system with coordinated operation of Brownlee and Oxbow [7]	4,619	5,846	5,393
Gain with addition and coordination of Brownlee and Oxbow	46	38	46
Loss if Brownlee and Oxbow operate independently [8]	5	17	15
Total system gain coordinated over independent operation	51	55	61
1964–65:			
Columbia River system without Brownlee, Oxbow, and Hells Canyon [12]	4,571	5,811	[13] 5,346
Columbia River system with coordinated operation of Brownlee, Oxbow, and Hells Canyon [9]	4,614	5,849	5,395
Gain with addition and coordination of Brownlee, Oxbow, and Hells Canyon	43	38	49
Loss if Brownlee and Oxbow operate independently [10]	6	15	3
Total gain coordinated over independent operation	49	55	52

See footnotes on p. 22.

Critical-year energy interchange to maintain allocation of 405 megawatts of prime power to Idaho Power Co.

[Megawatts]

Month	Total Idaho load	Existing Idaho resources	Residual load	Allocated surplus		Allocated to Idaho		Brownlee and Oxbow capability	Idaho interchange			
									In		Out	
July	582	260	322	150	125	472	447	266	206	181	----	----
August	574	261	313	150	125	463	438	292	171	146	----	----
Sept. 1–15	534	277	257	150	125	407	382	351	56	31	----	----
Sept. 16–30 [1]	534	277	257	150	125	407	382	375	32	7	----	----
October	468	221	247	150	125	397	372	356	41	16	----	----
November [1]	471	220	251	150	125	401	376	372	29	4	----	----
December [1]	476	221	255	150	125	405	380	326	79	54	----	----
January [1]	494	215	279	150	125	429	404	324	105	80	----	----
February [1]	479	203	276	150	125	426	401	512	----	----	86	111
March [1]	467	226	241	150	125	391	366	526	----	----	135	160
Apr. 1–15 [1]	488	276	212	150	125	362	337	452	----	----	90	115
Apr. 16–30	488	276	212	150	125	362	337	174	188	163	----	----
May	548	288	260	150	125	410	385	143	267	242	----	----
June	575	244	331	150	125	481	456	231	250	225	----	----
Storage-season average	----	----	255	150	125	405	380	404	30	23	38	47

[1] Storage-release season.

OFFICE MEMORANDUM—UNITED STATES GOVERNMENT

AUGUST 19, 1957.

To: Mr. J. P. Jolliffe 3–SW.
From: William A. Pearl.
Subject: Meeting with Idaho Power Co., Wednesday, August 21, 8:30 a. m.

In accordance with our discussion at the meeting this morning, I called Mr. Nelson in Boise. He is planning to send Mr. Austin to attend our meeting with Idaho Power Co. Wednesday morning. Mr. Austin probably will come in early so that he can talk with you Tuesday afternoon.

WM. A. PEARL, *Administrator.*

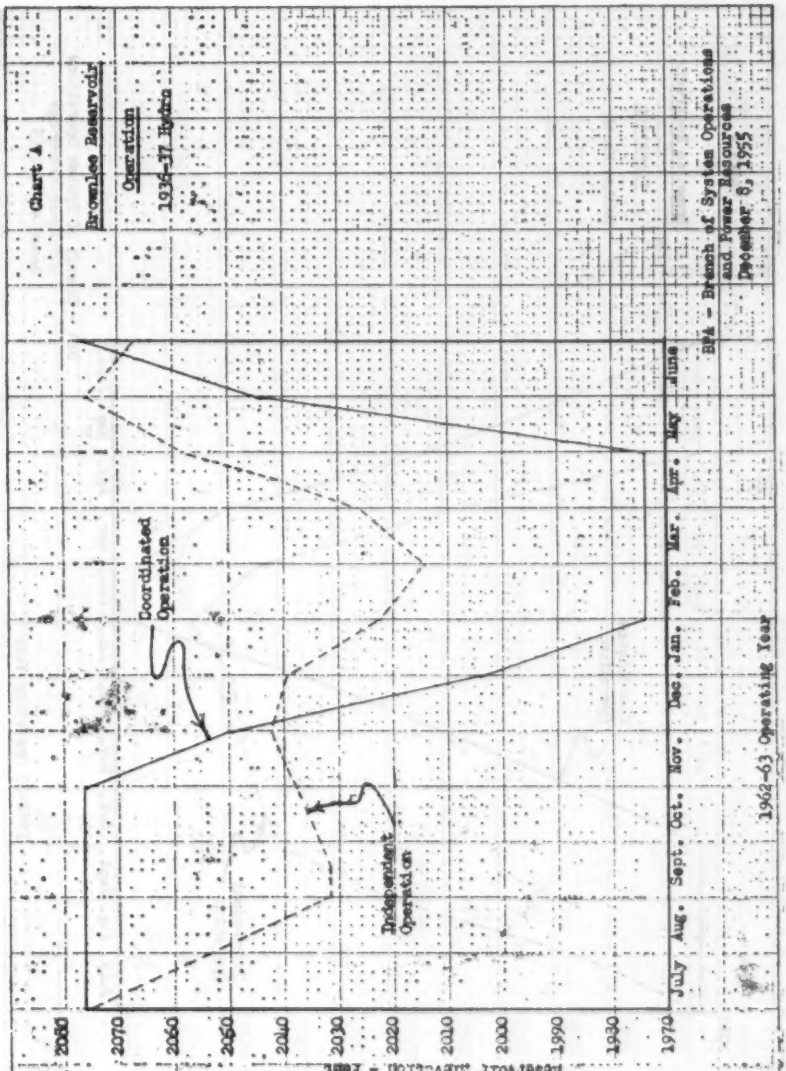
Chart 4
Brownlee Reservoir
Operation
1936-37 Hydro
Coordinated Operation
Independent Operation
Reservoir Elevation - Feet
2080
2070
2060
2050
2040
2030
2020
2010
2000
1990
1980
1970
July Aug. Sept. Oct. Nov. Dec. Jan. Feb. Mar. Apr. May June
1962-63 Operating Year
BPA - Branch of System Operations
and Power Resources
December 8, 1955

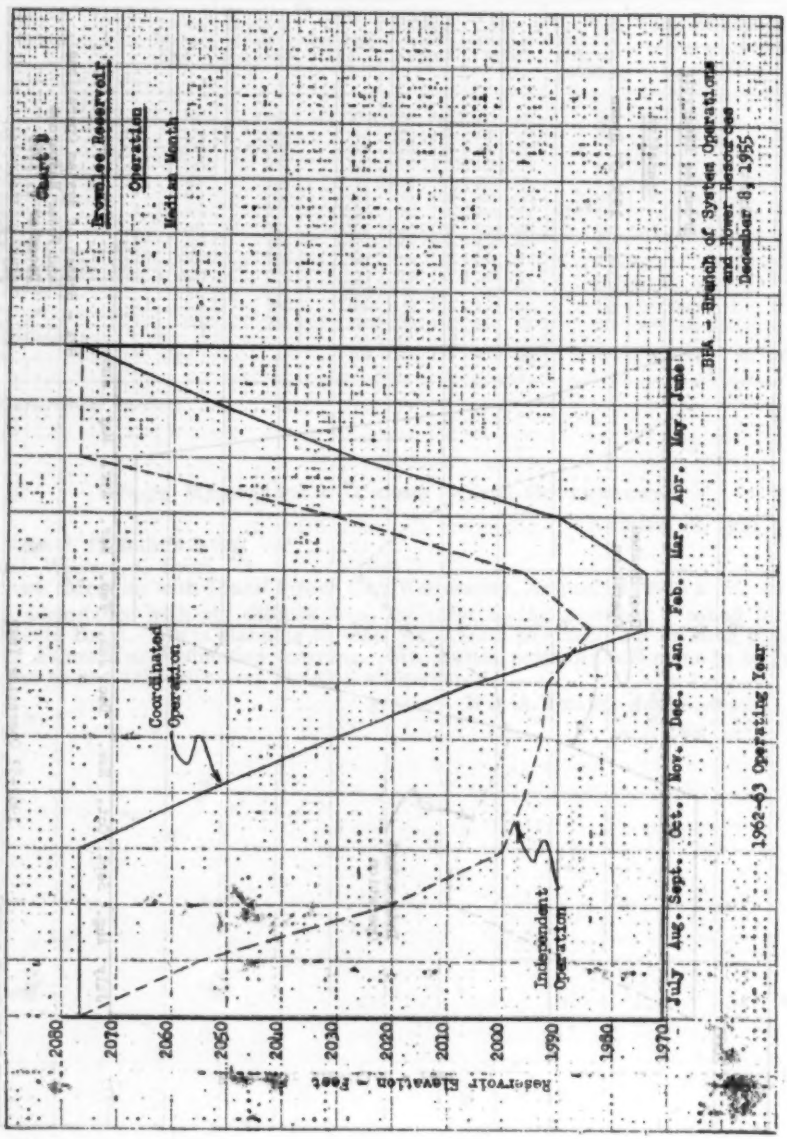
Chart 5
Hungry Horse Reservoir
Operation
Within Month
Coordinated Operation
Independent Operation
Reservoir Elevation - Feet
2080
2070
2060
2050
2040
2030
2020
2010
2000
1990
1980
1970
July Aug. Sept. Oct. Nov. Dec. Jan. Feb. Mar. Apr. May June
1962-63 Operating Year
BPA - Branch of System Operations and Power Resources
December 8, 1955

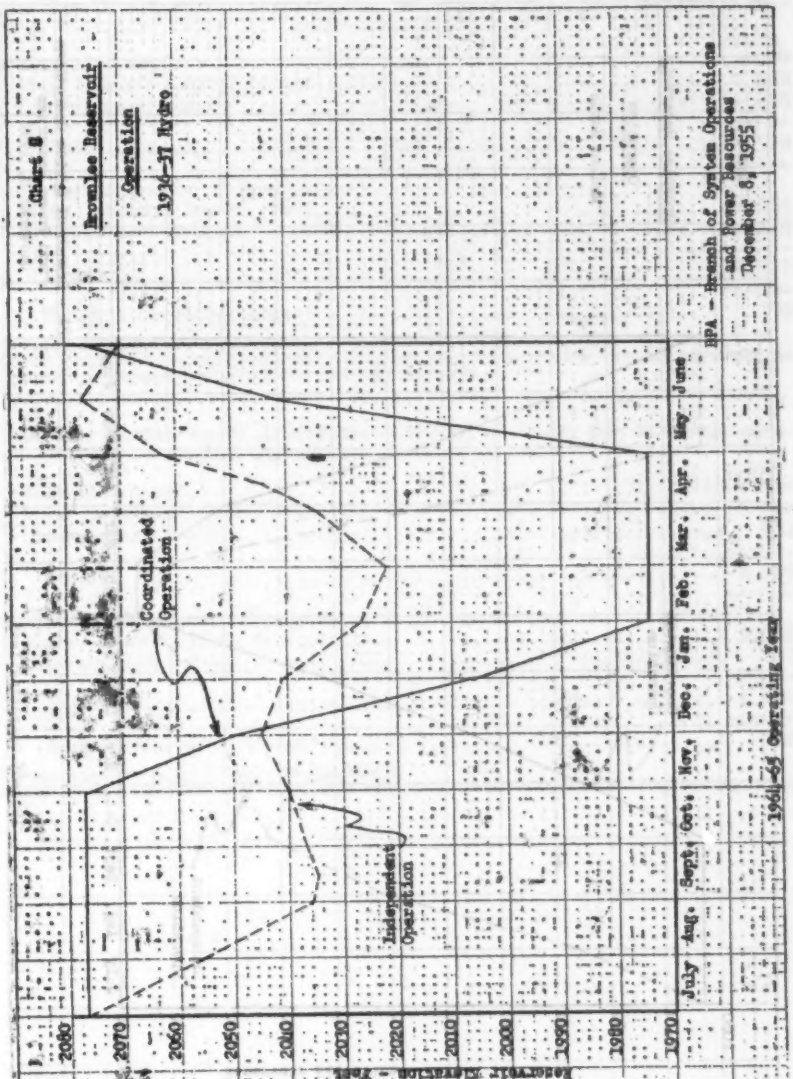
Chart 8
Bronilee Reservoir
Operation
1930-31 Hydro
Coordinated Operation
Independent Operation
Reservoir Elevation - Feet
2070
2060
2050
2040
2030
2020
2010
2000
1990
1980
1970
July
Aug.
Sept.
Oct.
Nov.
Dec.
Jan.
Feb.
Mar.
Apr.
May
June
1960-61 Operating Year
BPA - Branch of System Operations and Power Resources
December 8, 1955

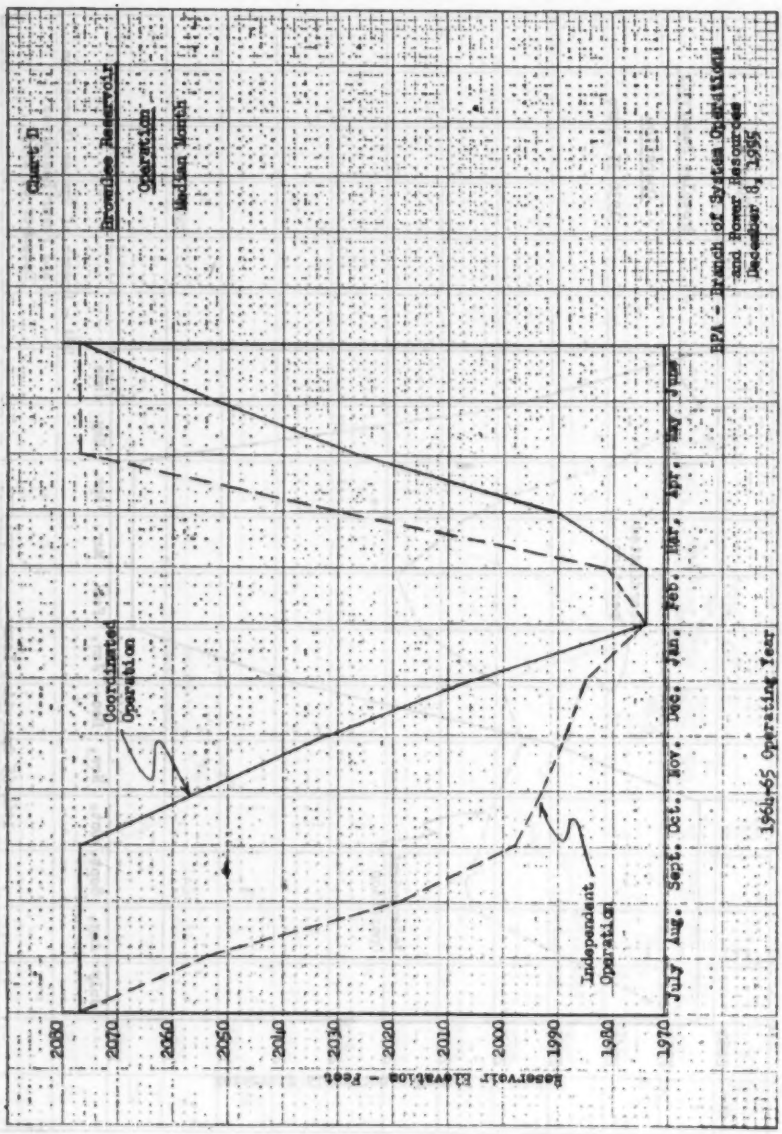
Chart II
Brownlee Reservoir
Operation
Median Month
Coordinated Operation
Independent Operation
Reservoir Elevation - Feet
2080
2070
2060
2050
2040
2030
2020
2010
2000
1990
1980
1970
July Aug. Sept. Oct. Nov. Dec. Jan. Feb. Mar. Apr. May June
1964-65 Operating Year
EPA - Branch of System Operations
and Power Resources
December 8, 1965

FIRST REVISION

BENEFIT FROM COORDINATION OF BROWNLEE WITH NORTHWEST POWER POOL

TABLE I.—*Minimum-year streamflows—1962–63 operating year—System prime-power capability* [1]

	Average megawatts
Coordinated operation:	
Main Columbia River system	4,623
Brownlee and Oxbow	396
Total	5,019
Independent operation of Brownlee:	
Main Columbia River system	4,561
Brownlee and Oxbow	316
Total	4,877
Benefit from coordination [2]	142

[1] Average capability during storage-drawdown season (Sept. 15 through Apr. 15).
[2] Annual loss at Brownlee and Oxbow with coordinated operation amounts to 3 average megawatts but can be made up with summertime secondary from Federal system.

TABLE II.—*Median-month streamflows—1962–63 operating year—Average capability during storage-drawdown period* [1]

	Average megawatts
Coordinated operation:	
Main Columbia River system	5,398
Brownlee and Oxbow	432
Total	5,830
Independent operation of Brownlee:	
Main Columbia River system	5,332
Brownlee and Oxbow	331
Total	5,663
Benefit from coordination [2]	180

[1] Storage drawdown period is Sept. 1 through Mar. 31
[2] Annual benefit at Brownlee and Oxbow with coordinated operation amounts to 29 average megawatts.

TABLE III.—*Minimum-year streamflows—1964–65 operating year—System prime-power capability* [1]

	Average megawatts
Coordinated operation:	
Main Columbia River system	4,620
Brownlee, Oxbow, and Hells Canyon	618
Total	5,238
Independent operation of Brownlee:	
Main Columbia River system	4,558
Brownlee, Oxbow, and Hells Canyon	499
Total	5,057
Benefit from coordination [2]	181

[1] Storage drawdown period is Sept. 16 through Apr. 15.
[2] Annual loss at Brownlee, Oxbow, and Hells Canyon with coordinated operation amounts to 6 average megawatts but can be made up with summertime secondary from the Federal system.

TABLE IV.—*Median-month streamflows—1964–65 operating year—Average capability during storage-drawdown period* [1]

	Average megawatts
Coordinated operation:	
Main Columbia River system	5,398
Brownlee, Oxbow, and Hells Canyon	688
Total	6,086
Independent operation of Brownlee:	
Main Columbia River system	5,343
Brownlee, Oxbow, and Hells Canyon	551
Total	5,894
Benefit from coordination [2]	192

[1] Storage-drawdown period is Sept. 1 through Mar. 31.
[2] Annual benefit at Brownlee, Oxbow, and Hells Canyon with coordinated operation amounts to 50 average megawatts.

IDAHO POWER CO., LOADS AND RESOURCES

TABLE V.—*With integrated Brownlee regulation*

[1962-63, 1936-37 hydro, with Brownlee regulation]

	July	August	Sept. 1-15	Sept. 16-30	October	November	December	January	February	March	Apr. 1-15	Apr. 16-30	May	June
Average:														
Idaho Power Co., load	582	574	534	534	468	471	476	494	479	467	488	488	548	575
Present system hydro	230	232	227	227	230	229	233	223	212	229	282	282	257	220
Brownlee generation	190	209	251	268	255	266	233	304	331	279	237	207	81	100
Oxbow generation	76	83	100	107	101	106	93	125	151	151	151	139	42	42
U. S. Bureau of Reclamation, surplus or deficiency)	30	29	50	50	(9)	(9)	(12)	(8)	(9)	(3)	(6)	(6)	31	24
Total hydro	526	553	628	652	577	592	547	644	685	656	664	622	411	386
Surplus or (deficiency)	(56)	(21)	94	118	109	121	71	150	206	189	176	134	(137)	(189)
Peak:														
Idaho Power Co., load	772	769	731	731	645	663	670	692	654	627	667	667	744	783
Present system hydro	358	359	360	360	362	362	362	360	361	361	360	360	359	358
Brownlee generation	414	414	414	414	414	414	414	414	380	285	248	253	414	414
Oxbow generation	174	174	174	174	174	174	174	174	174	174	174	174	174	174
U. S. Bureau of Reclamation, surplus	26	11	19	19	67	111	112	115	120	123	79	79	28	27
Total hydro	972	958	967	967	1,017	1,061	1,062	1,063	1,035	943	861	866	975	973
Surplus	200	189	236	236	372	398	392	371	381	316	194	199	231	199

TABLE VI.—*With integrated Brownlee regulation*

[1962-63 median month hydro with Brownlee regulation]

	July	August	September	October	November	December	January	February	March	April	May	June
Average:												
Idaho Power Co., load	582	574	534	468	471	476	494	479	467	488	548	575
Present system hydro	239	239	240	243	251	253	261	254	246	281	257	265
Brownlee generation	218	202	260	320	358	329	288	243	238	285	335	342
Oxbow generation	87	80	103	129	151	151	151	151	151	151	151	141
U. S. Bureau of Reclamation surplus or (deficiency)	30	29	19	(6)	(5)	(7)	3	15	27	25	38	43
Total hydro	574	550	622	686	755	726	703	663	662	742	781	791
Surplus or (deficiency)	(8)	(24)	88	218	284	250	209	184	195	254	233	216
Peak:												
Idaho Power Co., load	772	709	731	645	663	670	692	654	627	667	744	783
Present system hydro	359	359	361	362	362	362	360	361	361	361	359	359
Brownlee generation	414	414	414	414	414	304	302	248	288	398	414	414
Oxbow generation	174	174	174	174	174	174	174	174	174	174	174	174
U. S. Bureau of Reclamation surplus or (deficiency)	26	11	(13)	77	118	115	115	120	123	81	28	27
Total hydro	973	958	936	1,027	1,068	1,045	951	903	946	1,014	975	974
Surplus	201	189	205	382	405	375	259	249	319	347	231	191

TABLE VII.—*With integrated Brownlee regulation*

[1964–65, 1936–37 hydro, with Brownlee regulation]

	July	August	September 1–15	September 16–30	October	November	December	January	February	March	April 1–15	April 16–30	May	June
Average:														
Idaho Power Co. load	636	626	582	582	507	510	516	538	520	506	529	529	598	628
Present system hydro	230	232	227	227	230	229	233	223	212	229	282	282	257	220
Brownlee generation	190	209	251	268	255	266	233	304	331	279	237	207	81	100
Oxbow generation	76	83	100	107	101	106	93	125	151	151	151	139	42	42
Hells Canyon generation	137	151	182	194	184	192	168	227	274	274	274	253	76	76
U. S. Bureau of Reclamation surplus or (deficiency)	24	22	43	43	(15)	(16)	(20)	(13)	(17)	(8)	(13)	(13)	26	19
Total hydro	657	697	803	839	755	777	707	866	951	925	931	868	482	457
Surplus or (deficiency)	21	71	221	257	248	267	191	328	431	419	402	339	(116)	(171)
Peak:														
Idaho Power Co. load	847	843	801	801	703	723	732	756	713	683	727	727	815	859
Present system hydro	358	359	360	360	362	362	362	360	361	361	360	360	359	358
Brownlee generation	414	414	414	414	414	414	414	414	380	285	248	253	414	414
Oxbow generation	174	174	174	174	174	174	174	174	174	174	174	174	174	174
Hells Canyon generation	240	300	300	300	300	300	300	300	300	300	300	300	300	300
U. S. Bureau of Reclamation surplus or (deficiency)	15	(1)	8	8	56	99	101	106	111	114	69	69	20	19
Total hydro	1,201	1,246	1,256	1,256	1,306	1,349	1,351	1,354	1,326	1,234	1,151	1,156	1,267	1,265
Surplus	354	403	455	455	603	626	619	598	613	551	424	429	452	406

TABLE VIII.—*With integrated Brownlee regulation*

[1964–65, median month hydro with Brownlee regulation]

	July	August	September	October	November	December	January	February	March	April	May	June
Average:												
Idaho Power Co. load	636	626	582	507	510	516	538	520	506	529	598	628
Present system hydro	239	239	240	243	251	253	261	254	246	281	257	265
Brownlee generation	218	202	260	320	358	329	288	243	238	285	335	342
Oxbow generation	87	80	103	129	151	151	151	151	151	151	151	141
Hells Canyon generation	157	146	188	234	274	274	274	274	274	274	274	256
U. S. Bureau of Reclamation surplus or (deficiency)	24	22	12	(12)	(12)	(15)	(2)	9	22	18	33	38
Total hydro	725	689	803	914	1,022	992	972	931	931	1,009	1,050	1,042
Surplus	89	63	221	407	512	476	434	411	425	480	452	414
Peak:												
Idaho Power Co. load	847	843	801	703	723	732	756	713	683	727	815	859
Present system hydro	359	359	361	362	362	362	360	361	361	361	359	359
Brownlee generation	414	414	414	414	414	394	302	248	288	398	414	414
Oxbow generation	174	174	174	174	174	174	174	174	174	174	174	174
Hells Canyon generation	240	300	300	300	300	300	300	300	300	300	300	300
U. S. Bureau of Reclamation surplus or (deficiency)	15	(1)	(24)	66	106	104	106	111	114	71	20	19
Total hydro	1,202	1,246	1,225	1,316	1,356	1,334	1,242	1,194	1,237	1,304	1,267	1,266
Surplus	355	403	424	613	633	602	486	481	554	577	452	407

TABLE IX.—*Independent operation*

[1962–63, 1936–37 hydro]

	July	August	Sept. 1–15	Sept. 16–30	October	November	December	January	February	March	Apr. 1–15	Apr. 16–30	May	June
Average:														
Idaho Power Co. load	582	574	534	534	468	471	476	494	479	467	488	488	548	575
Present system hydro	230	232	227	227	230	229	233	223	212	229	282	282	257	220
Mid-Snake plants	383	374	318	318	308	312	316	340	337	302	273	273	325	392
U. S. Bureau of Reclamation surplus or (deficiency)	30	29	50	50	(9)	(9)	(12)	(8)	(9)	(3)	(6)	(6)	31	24
Total hydro	643	635	595	595	529	532	537	555	540	528	549	549	613	636
Surplus	61	61	61	61	61	61	61	61	61	61	61	61	65	61
Peak:														
Idaho Power Co. load	772	769	731	731	645	663	670	692	654	627	667	667	744	783
Present system hydro	358	359	360	360	362	362	362	360	361	361	360	360	359	358
Mid-Snake plants	588	588	588	588	588	588	588	570	543	583	588	588	588	588
U. S. Bureau of Reclamation surplus	26	11	19	19	67	111	112	115	120	123	79	79	28	27
Total hydro	972	958	967	967	1,017	1,061	1,062	1,045	1,024	1,067	1,027	1,027	975	973
Surplus	200	189	236	236	372	398	392	353	370	440	360	360	231	190

TABLE X.—*Independent operation*

[1962–63, median month hydro]

	July	August	Septem, ber	October	Novem- ber	Decem- ber	January	February	March	April	May	June
Average:												
Idaho Power Co. load	582	574	534	468	471	476	494	479	467	488	548	575
Present system hydro	239	239	240	243	251	253	261	254	246	281	257	265
Mid-Snake plants	416	409	378	334	328	333	333	313	297	508	511	511
U. S. Bureau of Reclamation surplus or (deficiency)	30	29	19	(6)	(5)	(7)	3	15	27	25	38	43
Total hydro	685	677	637	571	574	579	597	582	570	814	806	819
Surplus	103	103	103	103	103	103	103	103	103	326	258	244
Peak:												
Idaho Power Co. load	772	769	731	645	663	670	692	654	627	667	744	783
Present system hydro	359	359	361	362	362	362	360	361	361	361	359	359
Mid-Snake plants	588	563	499	488	482	474	451	479	588	588	588	588
U. S. Bureau of Reclamation surplus or (deficiency)	26	11	(13)	77	118	115	115	120	123	81	28	27
Total hydro	973	933	847	927	962	951	926	960	1,072	1,030	975	974
Surplus	201	164	116	282	299	281	234	306	445	363	231	191

TABLE XI.—*Independent operation*

[1964-65, 1936-37 hydro]

	July	August	Sept. 1–15	Sept. 16–30	October	November	December	January	February	March	Apr. 1–15	Apr. 16–30	May	June
Average:														
Idaho Power Co. load	636	626	582	582	507	510	516	538	520	506	529	529	598	628
Present system hydro	230	232	227	227	230	229	233	223	212	229	282	282	257	220
Mid-Snake plants	579	569	509	509	489	494	500	525	522	482	457	457	520	586
U. S. Bureau of Reclamation surplus or (deficiency)	24	22	43	43	(15)	(16)	(20)	(13)	(17)	(8)	(13)	(13)	26	19
Total hydro	833	823	779	779	704	707	713	735	717	703	726	726	803	825
Surplus	197	197	197	197	197	197	197	197	197	197	197	197	205	197
Peak:														
Idaho Power Co. load	847	843	801	801	703	723	732	756	713	683	727	727	815	859
Present system hydro	358	359	360	360	362	362	362	360	361	361	360	360	359	358
Mid-Snake plants	828	888	888	888	888	888	888	880	864	888	888	888	888	888
U. S. Bureau of Reclamation surplus or (deficiency)	15	(1)	8	8	56	99	101	106	111	114	69	69	20	19
Total hydro	1,201	1,246	1,256	1,256	1,306	1,349	1,351	1,346	1,336	1,363	1,317	1,317	1,267	1,265
Surplus	354	403	455	455	603	626	619	590	623	680	590	590	452	406

TABLE XII.—*Independent operation*

[1964-65, median month hydro]

	July	August	September	October	November	December	January	February	March	April	May	June
Average:												
Idaho Power Co. load	636	626	582	507	510	516	538	520	506	529	598	628
Present system hydro	239	239	240	243	251	253	261	254	246	281	257	265
Mid-Snake plants	469	641	606	552	547	554	555	533	514	598	785	785
U. S. Bureau of Reclamation surplus or (deficiency)	24	22	12	(12)	(12)	(15)	(2)	9	22	18	33	38
Total hydro	912	902	858	783	786	792	814	796	782	897	1,075	1,088
Surplus	276	276	276	276	276	276	276	276	276	368	477	460
Peak:												
Idaho Power Co. load	847	843	801	703	723	732	756	713	683	727	815	859
Present system hydro	359	359	361	362	362	362	360	361	361	361	359	359
Mid-Snake plants	828	854	791	777	764	751	722	731	877	888	888	888
U. S. Bureau of Reclamation surplus or (deficiency)	15	(1)	(24)	66	106	104	106	111	114	71	20	19
Total hydro	1,202	1,212	1,128	1,205	1,232	1,217	1,188	1,203	1,352	1,320	1,267	1,266
Surplus	355	369	327	502	509	485	432	490	669	593	452	407

IDAHO MINIMUM YEAR INITIAL STUDY

BENEFIT FROM COORDINATION OF BROWNLEE WITH NORTHWEST POWER POOL

TABLE I-A.—*1934–35 streamflows, 1962–63 operating year—System prime power capability* [1]

	Average megawatts
Coordinated operation:	
Main Columbia River system	5,840
Brownlee and Oxbow	366
Total	6,206
Independent operation of Brownlee:	
Main Columbia River system	5,791
Brownlee and Oxbow	280
Total	6,071
Benefit from coordination [2]	135

[1] Average capability during storage drawdown season (Sept. 1 through Apr. 30)
[2] Annual benefit at Brownlee and Oxbow with coordinated operation amounts to 7 average megawatts.

TABLE II-A.—*1934–35 streamflows, 1964–65 operating year—System prime power capability* [1]

	Average megawatts
Coordinated operation:	
Main Columbia River system	5,849
Brownlee, Oxbow, and Hells Canyon	572
Total	6,421
Independent operation of Brownlee:	
Main Columbia River system	5,796
Brownlee, Oxbow, and Hells Canyon	449
Total	6,245
Benefit from coordination [2]	176

[1] Average capability during storage drawdown season (Sept. 1 through Apr. 30).
[2] Annual benefit at Brownlee, Oxbow, and Hells Canyon with coordinated operation amounts to 8 average megawatts.

IDAHO POWER CO., LOADS AND RESOURCES

TABLE III–A.—*With integrated Brownlee regulation*

[1962–63, 1934–35 hydro, with Brownlee regulation]

	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
AVERAGE												
Idaho Power Co., load	582	574	534	468	471	476	494	479	467	488	548	575
Present system hydro	212	208	206	216	212	213	212	201	199	206	214	202
Brownlee generation	172	184	223	220	227	228	248	351	288	235	78	97
Oxbow generation	68	73	89	87	91	91	100	151	151	151	42	42
U. S. Bureau of Reclamation surplus or (deficiency)	20	8	(27)	(18)	(6)	(10)	(9)	(12)	(7)	(17)	(9)	35
Total hydro	472	473	491	505	524	522	551	691	631	575	325	376
Surplus or (deficiency)	(110)	(101)	(43)	37	53	46	57	212	164	87	(223)	(199)
PEAK												
Idaho Power Co., load	772	769	731	645	663	670	692	654	627	667	744	783
Present system hydro	356	356	358	359	359	358	357	358	358	357	356	355
Brownlee generation	414	414	414	414	414	414	414	414	281	248	414	414
Oxbow generation	174	174	174	174	174	174	174	174	174	174	174	174
U. S. Bureau of Reclamation surplus or (deficiency)	0	(19)	(53)	4	45	42	42	47	50	30	(29)	23
Total hydro	944	925	893	951	992	988	987	993	863	809	915	966
Surplus	172	156	162	306	329	318	295	339	236	142	171	183

TABLE IV–A.—*With integrated Brownlee regulation*

[1964–65, 1934–35 hydro with Brownlee regulation]

	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
AVERAGE												
Idaho Power Co., load	636	626	582	507	510	516	538	520	506	529	598	628
Present system hydro	212	208	206	216	212	213	212	201	199	206	214	202
Brownlee generation	172	184	223	220	227	228	248	351	288	235	78	97
Oxbow generation	68	73	89	87	91	91	100	151	151	151	42	42
Hells Canyon generation	124	133	161	158	164	165	181	274	274	274	76	76
U. S. Bureau of Reclamation surplus or (deficiency)	16	4	(31)	(22)	(10)	(14)	(12)	(13)	(10)	(21)	(11)	33
Total hydro	592	602	648	659	684	683	729	964	902	845	399	450
Surplus or (deficiency)	(44)	(24)	66	152	174	167	191	444	396	316	(199)	(178)
PEAK												
Idaho Power Co. load	847	843	801	703	723	732	756	713	683	727	815	859
Present system hydro	356	356	358	359	359	358	357	358	358	357	356	355
Brownlee generation	414	414	414	414	414	414	414	414	281	248	414	414
Oxbow generation	174	174	174	174	174	174	174	174	174	174	174	174
Hells Canyon generation	240	300	300	300	300	300	300	300	300	300	300	300
U. S. Bureau of Reclamation surplus or (deficiency)	(6)	(25)	(50)	(2)	38	36	38	42	45	24	(33)	18
Total hydro	1,178	1,219	1,187	1,245	1,285	1,282	1,283	1,288	1,158	1,103	1,211	1,261
Surplus	331	376	386	542	562	550	527	575	475	376	396	402

TABLE V–A.—*Independent operation*

[1962–63, 1934–35 hydro]

	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
AVERAGE												
Idaho Power Co., load	582	574	534	468	471	476	494	479	467	488	548	575
Present system hydro	212	208	206	216	212	213	212	201	199	206	214	202
Mid-Snake plants	340	348	345	260	255	263	281	280	265	289	333	347
U. S. Bureau of Reclamation surplus or (deficiency)	20	8	(27)	(18)	(6)	(10)	(9)	(12)	(7)	(17)	(9)	35
Total hydro	572	564	524	458	461	466	484	469	457	478	538	584
Surplus or (deficiency)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	9
PEAK												
Idaho Power Co., load	772	769	731	645	663	670	692	654	627	667	744	783
Present system hydro	356	356	358	359	359	358	357	358	358	357	356	355
Mid-Snake plants	588	588	553	556	572	587	586	569	588	588	588	588
U. S. Bureau of Reclamation surplus or (deficiency)	0	(19)	(53)	4	45	42	42	47	50	30	(29)	23
Total hydro	944	925	858	919	976	987	985	974	996	975	915	966
Surplus	172	156	127	274	313	317	293	320	369	308	171	183

TABLE VI–A.—*Independent operation*

[1964–65, 1934–35 hydro]

	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
AVERAGE												
Idaho Power Co., load	636	626	582	507	510	516	538	520	506	529	598	628
Present system hydro	212	208	206	216	212	213	212	201	199	206	214	202
Mid-Snake plants	522	528	521	427	422	431	452	446	431	458	509	508
U. S. B. R. surplus or (deficiency)	16	4	(31)	(22)	(10)	(14)	(12)	(13)	(10)	(21)	(11)	33
Total hydro	750	740	696	621	624	630	652	634	620	643	712	743
Surplus	114	114	114	114	114	114	114	114	114	114	114	115
PEAK												
Idaho Power Co., load	847	843	801	703	723	732	756	713	683	727	815	859
Present system hydro	356	356	358	359	359	358	357	358	358	357	356	355
Mid-Snake plants	828	888	874	874	885	888	888	874	888	888	888	888
U. S. Bureau of Reclamation surplus or (deficiency)	(6)	(25)	(59)	(2)	38	36	38	42	45	24	(33)	18
Total hydro	1,178	1,219	1,173	1,231	1,282	1,282	1,283	1,274	1,291	1,269	1,211	1,261
Surplus	331	376	372	528	559	550	527	561	608	542	396	402

Coordination Agreement Executed by the United States of America Department of the Interior Acting by and Through the Bonneville Power Administration and Idaho Power Company

(Rough draft submitted by Idaho Power, August 29, 1956)

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0.1 This COORDINATION AGREEMENT, executed _____, 1956, by the UNITED STATES OF AMERICA (hereinafter called "United States"), Department of the Interior, acting by and through the BONNEVILLE POWER ADMINISTRATION (hereinafter called "Administrator"), and IDAHO POWER COMPANY (hereinafter called "Company"), a corporation duly qualified and authorized to do business in the States of Idaho, Oregon and Nevada, with its principal place of business in Boise, Idaho, its successors and assigns;

WITNESSETH, THAT:

0.2 Whereas, the Company is an electric utility company engaged in the generation, delivery, and sale of electric energy, and is constructing, under Federal Power Commission license (Project No. 1971), three additional hydroelectric plants (Brownlee, Oxbow, and Hells Canyon) on the Snake River below Weiser, Idaho, with an initial peaking capability of approximately one million kilowatts, to provide for the increased power requirements of its customers in the States of Idaho, Oregon and Nevada; and

0.3 Whereas, the Brownlee Plant, being constructed by the Company, includes a reservoir with a usable capacity of approximately 1,000,000 acre-feet, which will be used for flood control, navigation, recreational purposes and for regulation of the river to provide maximum power generation operated as a part of the Northwest Power Pool; and

0.4 Whereas, the Administrator is the marketing agent for the power generated at various Federal hydroelectric plants on the Columbia River, downstream from the Brownlee reservoir and other plants on the Columbia River and its tributaries, and the United States is the owner of an electric transmission system which is used to deliver electric energy at wholesale to the United States customers, such Federal hydro plants and transmission system hereinafter referred to as "Federal system"; and

0.5 Whereas, the parties hereto desire to obtain the benefits of maximum firm power generation for each system and for the area that will result from the integration and/or coordinated operation of the Federal system and the Company system, including the coordinated regulation of Brownlee storage; and

0.6 Whereas, the United States will benefit from coordinated operation of the two systems by having available for sale additional amounts of electric power and energy, and therefore, it is advantageous to the United States to make energy available to the Company; and

0.7 Whereas, the parties hereto are members of the Northwest Power Pool and cooperate in the coordinated operating program prepared each year for all electric utilities in the Northwest; and

0.8 Whereas, the coordinated operation of the Federal system and the Company's system will require agreement between the parties on operating procedures, interconnection facilities, interchange and sale of energy;

0.9 Now, therefore, the parties hereto mutually agree as follows:

ARTICLE I. TERM OF AGREEMENT

1.1 This agreement shall become effective upon the date first above written, and shall remain in effect during the term of the Federal Power Commission license (Project No. 1971) to the Company, ending August 4, 2005.

ARTICLE II. DEFINITIONS

2.1 The following terms, wherever used in the agreement, shall have the following respective meanings:

(a) "*Natural Flow Energy Capability*" of any system during any specified period shall mean the energy that can be produced by the system's hydro plants from natural stream flow, natural stream flow being the flow which would exist if there were no change in the elevation of upstream storage reservoirs; *provided, however,* that where discharges from upstream reservoirs are controlled by other parties for purposes other than power, natural stream flow shall, for the purpose of current operation, be the actual inflow to a system's reservoirs or forebays.

(b) "*Firm Energy Capability*" shall mean the computed average energy a system can produce from natural stream flow and full use of water stored in all reservoirs during the Control Season, as hereinafter defined, of the adverse water year (or years) of the system; adverse water year being the period of a repetition of historical critical "minimum stream flows" which, when related to the characteristics of the system firm power and energy load, plant capabilities, and regulated storage releases, would produce the least Firm Energy Capability on the system.

(c) "*Control Season*" shall mean that period between the date when the Natural Flow Energy Capability of the system declines below its Firm Energy Capability, and the following date when its Natural Flow Energy Capability exceeds its Firm Energy Capability with a repetition of historical critical "minimum stream flows."

(d) "*Nominal Control Season*" shall mean that period in the Operating Year (or years) which corresponds to the dates and periods of time of the Control Season of the adverse water year (or years) of the system.

(e) "*Operating Year (or years)*" shall mean that period between the beginning date of the Control Season or Nominal Control Season and the beginning date of the next subsequent Control Season or Nominal Control Season. The Operating Year (or years) shall be divided, for the purpose of this agreement, into two operating periods defined as follows:

(i) The "first period" shall begin when the Natural Flow Energy Capability of the system declines below the Firm Energy Capability of the system and shall end when the Natural Flow Energy Capability is equal to the Firm Energy Capability.

(ii) The "second period" shall begin at the end of the Control Season or when the Natural Flow Energy Capability is equal to the system Firm Energy Capability and shall end when the Natural Flow Energy Capability declines below the Firm Energy Capability.

(f) "*Firm Load Capability*" shall mean the average energy in the system load which can be supplied from the Firm Energy Capability.

ARTICLE III. OPERATING REPRESENTATIVES

3.1 It is hereby agreed by and between the parties hereto that the Federal system and the Company system shall be operated in such a manner as will result in there being available to each system and for the Northwest Power Pool area the maximum Firm Load Capability under a repetition of the most adverse historical water conditions, and furthermore, under water conditions better than adverse, the systems will be operated in such a manner as to produce the maximum amount of usable energy.

3.2 Coordinated operation of the Federal and Company systems shall be under the direction of designated Operating Representatives of each party.

3.3 In directing such coordinated operation, said Operating Representatives shall consider load conditions, available capacity, hydro conditions, including

reservoir elevations, stream flow probabilities and possibility of waste by spill, steam operation, maintenance and spinning reserve requirements, available transmission capacity, voltage control, reactive flow and other essential operating factors.

3.4 Each year, 90 days in advance of the first period of the Operating Year, but not later than June 15, the Operating Representatives of the parties hereto shall prepare preliminary plans for coordinated operation of the two systems as a part of the Northwest Power Pool. Such plans shall include the loads estimated by each part for its own system, construction and maintenance schedules, and other necessary data that the Operating Representatives shall deem useful in effecting the objectives of this agreement.

ARTICLE IV. DETERMINATION OF SYSTEM CAPABILITY

4.1 The Operating Representatives shall compute and agree upon the Federal and Company system capabilities from data supplied by each party for its own system and other necessary information hereinafter set forth; such computations shall be based upon historical streamflows (modified for irrigation developments and other consumptive uses, including diversions, if any), reservoirs and the installation of generating capacity in hydro plants that will be in operation in the period for which the determination is made. The first computation and agreement shall be made and confirmed in writing between the parties by March 31, 1957, and shall be based upon the parties' respective systems as expected to exist from time to time through June 30, 1959; subsequent computations and agreements shall be made, by March 31 of any year, two years in advance of the completion of any reservoir or generating facility on either parties' system or in the Northwest Power Pool which will affect the amounts agreed upon.

4.2 The computations referred to in paragraph 4.1 shall be made in accordance with mutually accepted principles used in the determination of hydroelectric system capabilities and such computations shall determine the following items:

(a) The Control Season for Federal and Company system combined.

(b) The Firm Energy Capability for the Federal and Company system combined in the Control Season determined in 4.2 (a).

(c) The Firm Energy Capability during the Control Season determined in 4.2 (a) above on the Company system and on the Federal system.

(d) The energy capability in a Nominal Control Season containing the most adverse historical streamflow for each system.

(e) The Firm Load Capability of the respective systems during the Control Season determined in 4.2 (a) above for the Federal and Company systems.

(f) The firm load requirements on the Federal and on the Company systems during the second period of the Operating Year (or years) that will correspond to the Firm Load Capability determined in 4.2 (e) during the first period of the Operating Year (or years).

(g) Firm peaking capability of the Federal and Company systems during the Control Season determined in 4.2 (a).

(h) The integration power and energy available to the Company system through coordinated operation as follows:

(i) In the first period of the Operating Year of the combined system—the amount determined for the Company system in 4.2 (c) less the amount determined for the Company system in 4.2 (d);

(ii) In the second period of the Operating Year of the combined system—the amount determined for the Company system in 4.2 (f) less the generation on the Company system computed for the most adverse second period of the Operating Year on the Company system.

(i) The integration power and energy available to the Federal system through coordinated operation in the first period of the Operating Year—the amount determined for the Federal system in 4.2 (c) less the amount determined for the Federal system in 4.2 (d).

(j) The amount of the integration power and energy (hereinafter referred to as Integration Firm Energy Capability) which results from combining secondary energy on the Federal system with energy generated on the Federal system by water released from Brownlee reservoir on the Company's system.

(k) The energy capability of the two respective systems when median streamflows may occur.

ARTICLE V. OPERATING PROCEDURES

5.1 During the first and second periods of each operating year for the combined system, the Operating Representatives shall regulate releases of water from Brownlee reservoir to provide coordination of water use, and schedule related power and energy transfers between Federal and Company systems required for coordinated operation:

(A) During the first period:

(a) When the Company's computed water supply, assuming "minimum streamflow" for the balance of the first period, does not exceed the smaller of (1) the amount usable through the Company plants or (2) the Company's requirements or potential market, which in the Company's opinion is available, such coordinated water releases, reservoir drafts, and related power and energy transfers shall be such as to produce, for the balance of the period, the maximum power and energy on the Company and Federal systems; *provided, however,* that such water releases, reservoir drafts and related power and energy transfers, shall always be such that the Firm Energy Capability and related firm peak capability of the Company and Federal systems, determined in accordance with 4.2 (b) and 4.2 (g), can be produced for the balance of the first period with the coordinated releases herein provided and the power and energy transfers hereinafter set forth should "minimum streamflows" recur on either or both of the Company and Federal systems. The power and energy transfers related to such coordinated water releases shall be scheduled and classified in accordance with Articles VI and IX; *provided, however,* that the coordinated releases and related power and energy transfers of this section shall not require the Company

(i) to discharge an amount of water from its storage reservoirs in excess of the amount usable through any of the Company's plants or in excess of the amount usable by the Company to generate its requirements and other power and energy deliveries herein, whichever is the smaller, or

(ii) to limit water releases from Brownlee reservoir below that required for navigation and purposes other than power production, or

(iii) to limit water releases from Brownlee reservoir below an amount which would require power flow to the Company in excess of the capacity of the interconnecting transmission facilities.

(b) When the Company's computed water supply, assuming "minimum stream flows" for the balance of the first period, is in excess of the smaller of (1) the amount usable through some but not all of the Company's plants, or (2) Company's requirements and the potential market, which in the Company's opinion is available, and the Federal system's computed energy supply, assuming "minimum streamflow" for the balance of the first period, is less than the Federal system's requirements, such coordinated water releases and related power and energy transfers shall be made at Administrator's request in a manner to produce maximum usable generation on the Federal system, but shall not be such as to reduce the Company's energy supply to less than the larger of (3) its requirements and such available potential market, or (4) its Firm Load Capability and related firm peak capability, for the balance of the first period. The power and energy transfers related to such water releases of this paragraph, and in excess of other power and energy delivers herein, shall be scheduled and classified in accordance with Articles VI and IX; *provided, however,* that the coordinated water releases and related power and energy transfers shall not require Company to exceed the limitations set forth in paragraphs 5.1 (A) (a) (i), 5.1 (A) (a) (ii) and 5.1 (A) (a) (iii).

(c) Whenever the hydro power and energy supply with "minimum stream flows" for the balance of the first period of the Federal system and/or Northwest Power Pool is in excess of the area requirements, and whenever the water supply of both Federal and Company systems with "minimum stream flows" for the balance of the first period are in excess of their requirements and potential market, the coordinated releases of this Article and energy transfers of Article VI shall be discontinued; *provided, however,* that the power and energy transfers of Article VI, as scheduled in accordance with Article IX, shall be continued until such time as the balance in the "operating energy account", specified in Article VI, has been reduced to zero.

(B) During the second period the water releases and related power and energy transfers shall be such as to fill the Brownlee reservoir as rapidly as possible; *provided, however,* that such water releases and related power and energy transfers, shall always be such that the firm load requirements for the Company system determined in paragraph 4.2 (f) and related peaking capability can be supplied.

The power and energy transfers related to such coordinated water releases shall be scheduled and classified in accordance with Articles VI and IX; *provided, however,* that the coordinated releases and related power and energy transfers of this paragraph shall be within the following limitations:

(i) To provide for maximum utilization of electric energy available on the Federal and Company system, or

(ii) To provide the maximum power and energy on the Company's system, or

(iii) To provide for the use of interconnecting transmission facilities within practical operating limits, or

(iv) To provide the flood control functions in accordance with instructions from the Army Engineers, or

(v) To provide the minimum streamflows required for navigational purposes in accordance with agreements with the Army Engineers.

ARTICLE VI. DESCRIPTION AND AMOUNTS OF ENERGY TRANSFERS DUE TO COORDINATED WATER RELEASES

6.1 There shall be established an Operating Energy Account to account for the transfer of energy between systems to maintain firm load capability of the respective systems during the first period of the Operating Year of the combined systems, and to enable the release of Brownlee storage to maintain the Firm Load Capability of the two systems:

(a) During that part of the first period when Brownlee reservoir is held full and the natural flow energy is insufficient to supply the smaller of either (i) Company's load requirements, or (ii) Company's Firm Load Capability, there shall be debited against Company's Operating Energy Account the amount of energy delivered from the Federal system necessary to supply either of the above requirements.

(b) During that part of the first period when Brownlee storage water is being released for use in the Federal system plants and the natural flow energy plus the energy generated by Brownlee storage releases exceed the smaller of either (i) Company's load requirements, or (ii) Company's Firm Load Capability, there shall be delivered by the Company to the Federal system and credited to Company's Operating Energy Account the amount of energy so delivered to the Federal system.

(c) The Operating Energy Account shall be cleared within the first period by energy deliveries as scheduled by either party, giving consideration to availability of machine and transmission line capacity.

6.2 In the event the natural flow energy and energy from Brownlee and other storage on the Company system, expressed in average kilowatts for the first period of the Operating Year (or years) for the combined systems, is insufficient to supply the smaller of either (i) Company's load requirements, or (ii) Company's Firm Energy Capability, expressed in average kilowatts for the first period of the operating year, the amount of energy required to make up the difference between actual generation and Company's requirements above shall be delivered by Federal system as integration energy and classified as set forth in paragraph 9.3; *provided, however,* that such amount shall not exceed the quantity determined in accordance with 4.2 (h) (i).

6.3 In the second period of the Operating Year (or years) of the combined systems, the energy delivered to Company shall be integration energy classified as set forth in paragraph 9.3; *provided, however,* that such amount shall not exceed the quantity determined in accordance with paragraph 4.2 (h) (ii).

ARTICLE VII. AVAILABILITY OF POWER AND ENERGY FOR COORDINATED OPERATION

7.1 The parties hereto agree and affirm the essence of this Coordination Agreement to be predicated on the assurance of the availability of energy to effectuate the integration and coordinated operation of the two systems as herein set forth and the Administrator, for himself and successors, does hereby pledge and affirm for the United States that the presently existing statutes will in no way limit the obligations herein agreed to, and the Company, for itself, successors and assigns, likewise pledges and affirms the full use of its facilities to fulfill the obligations herein agreed to.

7.2 The Administrator shall supply to Company from the Federal system integration power and energy in the amounts set forth in paragraphs 6.2 and 6.3 when scheduled as hereinafter set forth. Integration energy shall be made available to the Company at the rates hereinafter set forth and its priority of supply to the Company for this purpose shall be, in the first period, second only

to the United States load supplied from the Federal system's Firm Energy Capability, and in the second period, with proper placement with other area needs for filling and/or holding storage in non-federal reservoirs upstream from Federal plants and second only to the needs for filling and/or holding storage in Federal reservoirs upstream from Federal plants.

7.3 The Company shall coordinate the operation of Brownlee reservoir with the Federal system in accordance with the principles set forth in Article V to obtain on the Company and Federal systems maximum Firm Energy Capability and other useable energy.

7.4 The Integration Firm Energy Capability computed in 4.2 (j) to be available on the Federal system as a result of the coordinated operation provided for herein shall be available to the Company, its priority of supply to the Company shall be with the same placement of other firm power users, and the Company shall pay for such power at the rates hereinafter set forth.

ARTICLE VIII. OTHER ENERGY TRANSFERS

8.1 Either party, at its option, will accept during the Control or Nominal Control Season energy deliveries by the other party, in addition to those provided for hereunder, which will enable the accepting party to store or hold water in the parties' reservoir. On request of and as scheduled by the delivering party, such stored water will be released through the other party's plants, whenever in the party's opinion it has capacity available for such purpose, and, subject to the use of interconnecting facilities for the transfer of other power and energy provided for hereunder, the energy produced by such releases will be returned to the delivering party at no cost; *provided, however*, that the obligation to return such energy will terminate whenever the reservoir (or reservoirs) of the accepting party shall fill and spill.

8.2 Energy transfers under Contract No. 14–03–001–11493 shall be scheduled and classified along with energy transfers herein provided in accordance with Article IX.

8.3 By written agreement between parties, other energy transactions may be effected in accordance with Article IX.

ARTICLE IX. SCHEDULING AND CLASSIFICATION OF ENERGY

9.1 The Operating Representatives shall prepare hourly schedules of power and energy transfers, with simultaneous deliveries and receipts of more than one class of power being properly identified and accounted for each hour, and when so scheduled and agreed to by the Operating Representatives, will be considered as having been effectively delivered or received by the parties hereto. Operating deviations from schedule shall be held to a minimum, properly accounted for, and corrected for under like conditions of water supply and load. Net scheduled power and energy deliveries and receipts, and net actual power and energy deliveries and receipts, shall be equal for any monthly period.

9.2 In the event it is necessary to reduce or interrupt operations hereunder to repair or maintain facilities, such reductions or interruptions will be arranged for as far in advance as feasible by mutual agreement of the parties. When such reduction or interruption restricts or interrupts the delivering or receiving of scheduled power and energy, the representatives shall correct future schedules or deliveries and properly account for all deviations from recorded schedules.

9.3 Power and energy to be transferred between the Federal and Company systems in accordance with the definitions heretofore set forth shall be classified and accounted for when scheduled in accordance with the following descriptions:

(a) During the first period of the Operating Year (or years) for the combined system:

(i) Operating energy delivered in accordance with paragraph 6.1.

(ii) Integration energy delivered in accordance with paragraphs 6.2 and 7.2—

Class A: When unsalable to other customers of United States,
Class B: When salable as low availability secondary energy,
Class C: When salable as priority interruptible secondary energy,
Class D: When salable as dump energy.

(iii) Integration Firm Energy Capability delivered in accordance with paragraph 7.4.

(iv) Energy under Contract No. 14–03–001–11493.

(v) Other energy.

(b) During the second period of the Operating Year (or years) for the combined systems:

(i) Integration energy delivered in accordance with paragraphs 6.3 and 7.2—

Class A: When unsalable to other customers of United States,
Class B: When salable as low availability secondary energy,
Class C: When salable as priority interruptible secondary energy,
Class D: When salable as dump energy.

(ii) Integration Firm Energy Capability delivered in accordance with paragraph 7.4.

(iii) Energy under Contract No. 14–03–001–11493.

(iv) Other energy.

ARTICLE X. CHARGES FOR SERVICE

10.1 The Company shall pay the United States for energy delivered under this agreement in accordance with the classification of the energy as hereinbefore set forth at the following rates. Copies of the rates presently in effect are attached hereto:

(a) Operating energy classified in paragraphs 9.3 (a) (i)—No Charge—energy to be exchanged on basis 1 KWH equals 1 KWH.

(b) Integration energy classified in paragraphs 9.3 (a) (ii) and 9.3 (b) (i):

Class A: No charge
Class B: Bonneville Power Adm Rate No S–1 in effect at the time
Class C: Bonneville Power Adm Rate No C–4 in effect at the time
Class D: Bonneville Power Adm Rate No H–3 in effect at the time.

(c) Integration Firm Energy Capability classified in paragraphs 9.3 (a) (iv) and 9.3 (b) (iii) at the Bonneville Power Administration rate for firm power in effect at the time.

10.2 Under this agreement, the Company will perform the services described herein to the United States at no cost; *provided, however*, such charge may be reviewed each five years and by written agreement such additional charges as may become appropriate shall be made.

10.3 The accounting period for settlements hereunder shall be the calendar month, unless otherwise agreed upon by the parties.

10.4 All bills for net amounts owed by Company to United States hereunder, except as otherwise herein provided, shall be due and payable to the fifteenth day of the month following the end of the period to which the bill is applicable, or on the tenth day following receipt by Company of a properly certified invoice or voucher, whichever date is later. In the event a portion of a bill, or of any other claim or adjustment arising hereunder, is disputed, payment shall be made when due of the portion not in dispute.

ARTICLE XI. FACILITIES TO BE PROVIDED

11.1 The Company shall provide the interconnecting transmission facilities; in addition to the existing LaGrande point of interconnection, which, in the Company's opinion, is necessary to effect the energy transfers herein contained; *provided, however*, that the parties shall agree upon points where future points of interconnection may be established.

11.2 The United States shall provide the interconnecting transmission facilities, in addition to the existing LaGrande point of interconnection, which, in the United States' opinion, is necessary to effect the energy transfers herein contained; *provided, however*, that the parties shall agree upon points where future points of interconnection may be established.

11.3 Each party shall install, own, operate, and maintain such metering, telemetering and communication equipment on its own system as determined to be necessary to effect the integrated operation of the Federal and Company system.

ARTICLE XII. METERING AND POWER FACTOR

12.1 Subject to the other provisions of this contract, electric energy will be made available to either party hereunder in the form of three phase current, alternating at a frequency of approximately sixty (60) cycles per second. Deliveries thereof at each point of delivery shall be made directly over the parties' facilities at the approximate voltage and during the period specified for such point. The amounts of electric energy and reactive power delivered at such point of delivery during each hour shall be the amounts determined, after making such adjustment for losses as may be indicated by using factors to be agreed upon by Operating Representatives, from measurements made by the United States'

watt-hour, var-hour, and demand meters, respectively, installed, or to be installed, to record the flow of electric energy and reactive power at the place and in the circuit specified.

12.2 The United States will test the metering equipment owned by it at least once every two years, and if it is found to be inaccurate, will adjust or replace it. The Company will be given reasonable notice of the time when such tests will be made, and may have a representative present. At the request of one party, the other party will make additional tests or inspections of the metering equipment owned by the latter in the presence of representatives of the party making the request, and the cost thereof will be paid by the party making the request, if the percentage of error is found to be less than two per cent (2%) slow or fast.

12.3 If any test made shows any meter to be inaccurate by more than two per cent (2%), or if any meter fails to register, an appropriate adjustment will be made in the amount of power delivered (a) for the actual period of incorrect meter registration, if such period can be established, or (b) if not, for half the period from the date of the last preceding test of metering equipment; *provided, however,* that the period of adjustment shall not exceed six (6) months.

12.4 Each of the parties hereto will jointly plan and operate its system for mutual advantage and so that the flow of reactive power hereunder will not adversely affect the system of the other.

12.5 If any equipment or facilities of a party to this contract are, or are to be by the terms of this contract, located on the property of the other, a permit to install, test, maintain, inspect, replace, and repair during the term of this contract and to remove at the expiration of said term, such equipment and facilities, together with the right of ingress and egress at all reasonable times in such term, is hereby granted by the other party.

12.6 Each party shall have the right to read, at all reasonable times, any and all meters mentioned in this contract which are installed on the property of the other.

ARTICLE XIII. UNCONTROLLABLE FORCES AND LIABILITY

13.1 Neither party shall be considered to be in default in respect to any obligation hereunder, if prevented from fulfilling such obligation by reason of uncontrollable forces. The term uncontrollable forces, being deemed for the purpose of this contract to mean any cause beyond the control of the party affected, including, but not limited to, failure of facilities, flood, earthquake, storm, lightning, fire, epidemic, war, riot, civil disturbance, labor disturbance, sabotage, restraint by court or public authority, or act or failure to act by Court or public authority, which by exercise of due diligence and foresight such party could not reasonably have been expected to avoid. Either party rendered unable to fulfill any obligation by reason of uncontrollable forces shall exercise due diligence to remove such inability with all reasonable dispatch.

13.2 Each party shall defend and indemnify the other party against liability, loss, costs and expenses on account of injury (including death) or damage to persons or property occasioned on or adjacent to the facilities on its side of the delivery points described herein, unless such injury or damage resulted from the sole negligence of the other party or of its officers, servants, agents or employees; *provided, however,* that each party shall be solely responsible for the claims of and payments to its employees and agents for injuries (including death) occurring in connection with their employment or arising out of any workmen's compensation law.

ARTICLE XIV. GENERAL PROVISIONS

14.1 Nothing contained herein shall be construed to be in conflict with the statutes and laws prescribing the authority under which the Administrator acts.

14.2 Nothing in this agreement shall be construed as a limitation on the Administrator to sell to preference or other customers of the United States the firm power which would be available to the Administrator without the existence of this agreement.

14.3 Nothing in this agreement shall be construed as a limitation on the Company in selling power and energy available to the Company or in any way affecting the ability of the Company to perform its public utility responsibility to its customers in the areas now served and as the area may exist.

14.4 If at any time any dispute, difference or question shall arise between the parties hereto concerning the application, construction or meaning of any of the provisions of this agreement, except those dealing with rates and payment for power and energy, upon demand of either party the matter in dispute, the difference or question will be referred to arbitration. An offer of such reference to arbitration will be a condition precedent to any proceeding at law or in equity

concerning such matter or dispute, provided that either party may without arbitration bring a proceeding to enjoin breach of this agreement.

14.5 Either party may serve written notice of demand for arbitration, naming one arbitrator. The party served with such notice will appoint a second and the two so appointed will appoint a third. In case of failure of the party served with notice to appoint a second arbitrator within ten (10) days, or failure of the two first appointed to appoint a third within ten (10) days after the appointment of the second, then the party demanding arbitration may, after five (5) days' notice to the other party, apply for appointment of the second or third arbitrator, as the case may be, to any person who is a Judge of the United States District Court.

14.6 The arbitrators will hear such evidence as is submitted by the parties and will proceed to make a determination; *provided, however*, that the arbitrators will be entitled to call upon either party for additional information. The decision of a majority of the arbitrators will be binding upon the parties with respect to the matter submitted. All expenses of arbitration will be paid equally by the parties except that the compensation, if any, of the first and second members of the board of arbitration will be paid by the party by or for whom they were named.

ARTICLE XV. INTEREST OF MEMBER OF CONGRESS

15.1 No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this agreement or to any benefit that may arise therefrom, but this provision shall not be construed to extend to this agreement if made with a corporation for its general benefit.

ARTICLE XVI. REPRESENTATIVES AND NOTICES

16.1 For the purposes of this agreement, except as may be otherwise specifically provided herein, and until receipt of further notice in writing to the contrary, either party shall be entitled to regard as the authorized representative of the other person designated below:

Representative of United States: Administrator, Bonneville Power Administration

Representative of Company: President, Idaho Power Company

16.2 Any notice to be given by one party to the other in accordance with the provisions of this agreement, or with respect to a matter relating hereto, shall be deemed to be adequately given if sent by registered mail, deposited in a United States post office in Idaho or Oregon one day before the day as of which the notice is intended to be given, and addressed as follows:

Notice to United States, addressed to the
Administrator
Bonneville Power Administration
Portland 8, Oregon

Notice to Company, addressed to the
President, Idaho Power Company
1220 Idaho Street
Boise, Idaho

Either party may from time to time specify by notice in writing a different address to which notices are to be sent.

ARTICLE XVII. APPROVAL OF CONTRACT

17.1 This agreement shall not be binding upon the parties hereto until it has been approved by the Secretary of the Interior, the Federal Power Commission, the Public Utilities Commissioner of Oregon, the Public Utilities Commission of Idaho and the Public Service Commission of Nevada, but when so approved, shall be effective immediately.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed by their duly authorized officers as of the date first herein written.

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR,

(SEAL) By ----------
Bonneville Power Administrator.

IDAHO POWER COMPANY,

(SEAL) By ----------
President.

Attest:

Secretary.

COORDINATION AGREEMENT EXECUTED BY THE UNITED STATES OF AMERICA, DEPARTMENT OF THE INTERIOR, ACTING BY AND THROUGH THE BONNEVILLE POWER ADMINISTRATION AND IDAHO POWER CO.

(Draft No. 2 submitted by Idaho Power January 29, 1957)

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0.1 This COORDINATION AGREEMENT, dated _____, 1957, made and entered into by and between the UNITED STATES OF AMERICA (hereinafter called "United States"), Department of the Interior, acting by and through the BONNEVILLE POWER ADMINISTRATOR (hereinafter called "Administrator"), and IDAHO POWER COMPANY (hereinafter called "Company"), a corporation duly qualified and authorized to do business in the States of Idaho, Oregon and Nevada, with its principal place of business in Boise, Idaho, its successors and assigns;

WITNESSETH, THAT:

0.2 Whereas, the Company is an electric utility company engaged in the generation, delivery, and sale of electric energy; and the Federal Power Commission has issued to the Company a license (Project No 1971) for three additional hydroelectric plants (Brownlee, Oxbow and Hells Canyon) on the Snake River below Weiser, Idaho, with an initial peaking capability of approximately one million kilowatts, to provide for the increased power requirements of its service area, and of the territory served by members of the Northwest Power Pool system, of which the service area of the Company is a part; and said license requires that the Company coordinate the operation of said project and its system with the Northwest Power Pool; and

0.3 Whereas, the Brownlee Plant, being constructed by the Company, includes a reservoir with a usable capacity of approximately 1,000,000 acre-feet, which will be used for flood control and navigation purposes and for regulation of the river to provide maximum power generation in operation as a part of the Northwest Power Pool system, all as required in said license; and

0.4 Whereas, the Administrator is the marketing agent for the power generated at various Federal hydroelectric plants on the Columbia River and on its tributaries downstream from the Brownlee reservoir, and the United States is the owner of an electric transmission system which is used to deliver electric energy at wholesale from such plants to customers of the United States, such Federal hydro plants and transmission system being hereinafter referred to as the "Federal system"; and

0.5 Whereas, the Company's system is interconnected with the Federal system and other systems comprising the Northwest Power Pool, which consists of and includes all the major public and private electric plants and system (including the systems of the parties hereto) which serve the Pacific Northwest area, voluntarily cooperating in the coordinated operation of their combined systems under various individual contracts and arrangements for sale and interchange of power, storage and release of water, interconnection of facilities, and maximum coordinated utilization of economic power production resources; and

0.6 Whereas, in order to serve area loads, the maximum utilization and integration of all power generating resources in the territory served by the Northwest Power Pool systems is and will continue to be required; and the parties hereto desire to obtain the benefits of the additional firm power generation for their respective systems, and for the area, which will result from the integration and/or coordinated operation of the Company system and the Federal system, including the coordinated regulation of Brownlee storage, as required under the Federal Power Commission's license; and

0.7 Whereas, in order to obtain the coordinated operation of the Company's system and the Federal system, agreements are necessary between the parties on operating procedures, regulation of storage, and interchange and sale of energy; and the coordinated operation of the two systems and the interchange, supply and sale of power and energy, as in this agreement provided for, will be to the advantage of both parties, and to the Northwest Power Pool area;

Now, therefore, the parties hereto mutually agree as follows:

ARTICLE I. DEFINITIONS

1.1 The following terms, as used in the agreement, shall have the following respective meanings:

(a) "*Combined System*" shall mean the Federal system and Company system operated as a single system for maximum load carrying capability.

(b) "*Natural Flow Energy Capability*" of the respective systems of the parties, or of the Combined System, during any specified period, shall mean the energy that can be produced by such system's hydro plants from natural stream flow,—natural stream flow being the flow which would exist if there were no change in the elevation of upstream storage reservoirs; *provided, however*, that during periods when upstream reservoirs are being controlled for purposes other than power, natural stream flow shall be the actual aggregate inflow to such system's reservoirs or forebays.

(c) "*Firm Energy Capability*" of the respective systems of the parties, or of the Combined System, shall mean the computed average energy each such system can produce from natural stream flow (as defined in paragraph (b) above) and full use of all stored water under control of the party or parties in all reservoirs during the Control Season (as hereinafter defined) for the adverse water period applicable to the Combined System,—the adverse water period being the period (year or years) under assumed conditions of historical minimum stream flows which, when related to the characteristics of the Combined System firm load, plant capabilities and regulated storage releases, would produce the least energy capability on the Combined System.

(d) "*Firm Load Capability*" of the respective systems of the parties, or of the Combined System, shall mean the energy from such system's Firm Energy Capability which can be fitted and utilized to serve such system's load.

(e) "*Control Season*" relates to the Combined System, and shall mean that period between the date when the Natural Flow Energy Capability will decline below the Firm Load Capability of the Combined System, and the first succeeding date when its Natural Flow Energy Capability will again exceed its Firm Load Capability, under assumed conditions of historical minimum stream flows.

(f) "*Operating Period*" relates to the Combined System, and shall mean a cycle of Combined System operation (year or years) determined by the Operating Representatives of the parties, and consisting of drawdown and refill periods, as follows:

(1) A "drawdown period," shall begin when the Natural Flow Energy Capability declines below the load requirements of the Combined System, and shall end when the Natural Flow Energy Capability is again equal to such load requirements.

(2) A "refill period," shall begin when the Natural Flow Energy Capability is equal to the load requirements of the Combined System, and shall end when the Natural Flow Energy Capability declines below such load requirements.

(g) "*Operating Energy*" shall mean energy transferred between systems, during a drawdown period only, in order to supply a deficiency between either system's actual generation and its load requirements, as hereinafter provided.

(h) "*Integration Energy*" shall mean energy transferred between systems, during a refill period only, in order to supply a deficiency between either system's actual generation and its load requirements, as hereinafter provided.

(i) *"Integration Firm Energy Capability"* shall mean the additional Firm Energy Capability on the Federal system which results from combining capacity and secondary energy on the Federal system with energy generated on the Federal system by water released from the Company's reservoirs.

ARTICLE II. AVAILABILITY OF POWER AND ENERGY FOR COORDINATED OPERATION

2.1 It is understood and agreed that the Company system and the Federal system shall be operated in such manner as to provide the maximum Firm Load Capability for the Combined System, should a repetition of historical minimum stream flow occur, and to make available to each system its maximum Firm Load Capability. When actual water supply is greater than under historical minimum stream flow conditions, the respective systems will be operated in such manner as to produce the maximum amount of usable energy for each system. It is recognized and agreed that the objectives of this agreement are dependent upon the assurance of the availability to both parties of the energy required to effectuate the integration and coordinated operation of the two systems as herein provided for, and the Administrator and the Company agree to the use of their respective facilities as required in order to fulfill their respective obligations in this agreement set forth.

2.2 To obtain on the Combined System the maximum Firm Load Capability, and maximum supply of other usable energy for each system, the Company hereby agrees to the coordination of the operation of its reservoirs with the Federal system and to supply to the Federal system Operating Energy as requested by the Administrator under the terms of this agreement; and the Administrator hereby agrees to supply to the Company's system Operating Energy and Integration Energy as requested by the Company under the terms of this agreement, such Integration Energy to be supplied to the Company subject only to the needs for filling and/or holding storage in reservoirs on the Federal system upstream from Federal plants and to such placement of storage in non-Federal reservoirs as will provide generation of maximum usable energy in the Northwest Power Pool area.

ARTICLE III. OPERATING REPRESENTATIVES

3.1 Coordinated operation of the Federal and Company systems shall be under the direction of four Operating Representatives, two to be appointed in writing by each party.

3.2 In directing such coordinated operation, said Operating Representatives shall consider load conditions, available capacity, hydro conditions, including reservoir elevations, stream flow probabilities and possibility of waste by spill, steam operation, maintenance and spinning reserve requirements, available transmission capacities, voltage control, reactive flow and other essential operating factors.

3.3 Ninety days prior to the beginning of each Operating Period, and annually not later than June 15 of each year, the Operating Representatives shall prepare preliminary plans for coordinated operation of the two systems for the ensuing year. Such plans shall include the loads estimated (both energy and peak) by each party for its own system, construction and maintenance schedules, and such other necessary data, including operation with other members of the Northwest Power Pool, as the Operating Representatives shall deem useful in carrying out the provisions of this agreement.

ARTICLE IV. DETERMINATION OF SYSTEM CAPABILITIES

4.1 The Operating Representatives, from data supplied by each party for its own system and other necessary information, shall determine the Federal and Company system capabilities as hereinafter provided. Such computations shall be based upon historical stream flows (modified for irrigation developments and other consumptive uses), usable reservoir capacities, and the installed generating capacity in hydro plants that will be in operation in the period for which the determination is made. The first such computation and determination shall be made by the Operating Representatives, and confirmed in writing by and between the parties, by March 31, 1957, and shall be based upon the respective systems of the parties as expected to exist from time to time through June 30, 1959. Subsequent determinations and agreements, as aforesaid, shall be made by March 31 of any year, two years in advance of the scheduled completion of any reservoir or generating facility on either party's system or in the Northwest Power Pool which will affect the amounts agreed upon.

4.2 The determinations referred to in paragraph 4.1 shall be made in accordance with mutually accepted principles used in the determination of hydroelectric system capabilities, and shall include the following items:

(a) The Control Season.

(b) The firm Energy Capability for the Combined System.

(c) The amount of the Firm Energy Capability, determined in 4.2 (b) above, on the Company system and on the Federal system.

(d) The average energy capability of each system during a drawdown period, when such system is operating under assumed conditions of historical minimum stream flows, and when the Combined System can still maintain its Firm Energy Capability determined in paragraph 4.2 (b) above.

(e) The Firm Load Capability of the Combined System, and of the respective systems, during the Control Season.

(f) The estimated firm load requirements on the respective Federal and Company systems during a refill period which will occur when each system load in the Control Season is equal to the Firm Load Capability determined in 4.2 (e) above.

(g) The firm peaking capabilities of the Combined System, and of the respective systems, during the Control Season.

(h) The Operating Energy resulting from coordinated operation as follows:

(1) Available to the Company system from the Federal system: the sum of (A) the maximum number of kilowatt-hours required to be delivered to the Company to serve the Firm Load Capability, as determined in paragraph 4.2 (e), for the Company system; and (B) the kilowatt-hours determined for the Company system in paragraph 4.2 (c), minus the kilowatt-hours determined for the Company system in paragraph 4.2 (d).

(2) Available to Federal system from the Company system: the maximum number of kilowatt-hours required to be delivered to the Federal system to serve the Firm Load Capability, as determined in paragraph 4.2 (e), for the Federal system.

(i) The Integration Energy available to the Company system from the Federal system, resulting from coordinated operation: the amount determined for the Company system in 4.2 (f), less the average energy capability on the Company system during a refill period, computed under assumed conditions of historical minimum stream flows on the Company system.

(j) The amount of Integration Firm Energy Capability.

(k) The energy capability of the respective systems under median-month stream flow conditions.

ARTICLE V. OPERATING PROCEDURES

5.1 In each Operating Period, the Operating Representatives shall regulate releases of water from Brownlee and other reservoirs of the parties in accordance with adopted rule curves and schedule related power and energy transfers between Federal and Company systems, as required for coordinated operation of the Combined System, as follows:

(A) During the drawdown period:

(a) When the Company's estimated water supply, including available storage water and assuming historical minimum stream flow conditions for the balance of a drawdown period, does not exceed the smaller of (1) the amount usable through the Company plants, or (2) the amount required for generation to supply the Company's system load requirements and other loads available to the Company, such coordinated water releases from Brownlee and other reservoirs, and related power and energy transfers, shall be such as to produce the maximum usable power and energy on the Combined System; *provided, however*, that such water releases and related power and energy transfers shall always be such that the Firm Energy Capability and related firm peak capability of the Combined System, determined under paragraphs 4.2 (b) and 4.2 (g) can be produced throughout the remainder of the drawdown period should historical minimum stream flow conditions recur on either system or the Combined System; *provided, further*, that the coordinated water releases and related power and energy transfers provided for in this paragraph (a) shall not require the Company:

(i) to discharge an amount of water from its reservoir storage in excess of the amount usable through any of the Company's plants, or in excess of the amount usable by the Company to generate its load requirements and other power and energy deliveries provided for under this agreement, whichever is the smaller; or

(ii) to limit water releases from Brownlee reservoir below that required for navigation and flood control purposes; or

(iii) to regulate water releases from Company reservoirs in such a manner that would require power flow between systems in excess of the capacity of the interconnecting transmission facilities.

(b) When the Company's estimated water supply, including available storage water and assuming historical minimum stream flow conditions for the balance of a drawdown period, is in excess of the smaller of (1) the amouut usable through the Company's Brownlee, Oxbow or Hells Canyon powerplant, or (2) the amount required for generation to supply the Company's system load requirements and other loads available to the Company, and the Federal system's computed energy supply, assuming historical minimum stream flow conditions for the balance of the drawdown period, is less than the Federal system load requirements, such coordinated water releases from Brownlee and other reservoirs, and related power and energy transfers, shall be made at the Administrator's request so as to produce maximum usable generation on the Federal system; *provided, however,* that the coordinated water releases and related power and energy transfers provided for in this paragraph (b) shall not require Company to exceed the limitations set forth in paragraph 5.1 (A) (a) (iii); and *provided, further,* that such water releases and related power and energy transfers shall at all times be sufficient to provide the Company with an energy supply equal to the larger of (1) its requirements for its system load and other loads available to the Company or (2) its Firm Load Capability and related firm peak capability, determined under paragraph 4.2 (e) and 4.2 (g), throughout the remainder of the drawdown period.

(c) When the computed hydro power and energy supply of the Federal system, assuming historical minimum stream flow conditions for the balance of a drawdown period, is in excess of the Federal system load requirements, and the water supply of both Federal and Company systems, assuming historical minimum stream flow conditions for the balance of the drawdown period, is in excess of the amount required for generation to supply their respective load requirements, the coordinated water releases under this Article and energy transfers under Article VI may be discontinued; *provided, however,* that the power and energy transfers under Article VI, as scheduled in accordance with Article VIII, shall be continued until such time as the balance in the Operating Energy Account, provided for in Article VI, has been reduced to zero.

(B) During the refill period:

The water releases and related power and energy transfers shall be such as to fill the Brownlee reservoir as rapidly as possible, subject to maximum utilization of energy available on the Federal and Company systems; *provided, however,* that such water releases and related power and energy transfers shall always be such that the firm load requirements for the Company system, and related peaking capability, shall be available to the Company; *provided, further,* that the coordinated releases and related power and energy transfers provided for in this paragraph (B) shall be subject to flood control and navigation requirements, and to the capacities of interconnecting transmission facilities.

5.2 The power and energy transfers related to coordinated water releases, as provided in paragraph 5.1 above, shall be scheduled and classified in accordance with Articles VI and VIII.

ARTICLE VI. TRANSFERS OF ENERGY DUE TO COORDINATED OPERATION

6.1 There shall be established an Operating Energy Account, for use during the drawdown period or periods of each Operating Period, to account for the transfer of Operating Energy between systems.

(a) During that part of a drawdown period when Company reservoirs are held at the same level, and the Company's natural flow of energy is insufficient to supply the smaller of either (i) the Company's system load requirements and other loads available to the Company, or (ii) the Company's Firm Load Capability as determined under paragraph 4.2 (e), there shall be delivered to the Company system from the Federal system such amount of energy as is necessary to supply the above deficiency, and the Company shall be debited (and the Administrator credited) in the Operating Energy Account with the amount of energy so delivered to the Company system.

(b) During that part of the drawdown period when Company storage water is being released for use in the Federal system plants, and the Company's natural flow energy plus the energy generated by storage releases exceeds the smaller of either (i) the Company's system load requirements and other loads available to

the Company, or (ii) the Company's Firm Load Capability, there shall be delivered by the Company to the Federal system the amount of such excess, and the Company shall be credited (and the Administrator debited) in the Operating Energy Account with the amount of energy so delivered to the Federal system.

(c) The Operating Energy Account shall be cleared during the drawdown period or periods of each Operating Period either (1) by energy deliveries as scheduled by the parties, or (2) by transfer of energy balances in the account into other energy classifications described in paragraph 8.3.

6.2 During each Operating Period, energy shall be made available to the Company system from the Federal system as follows:

(a) During drawdown periods: the amount of Operating Energy required and scheduled by the Company, but not exceeding the total amount determined under paragraph 4.2 (h) (1).

(b) During the refill periods: the amount of Integration Energy required and scheduled by the Company, but not exceeding the total amount determined under paragraph 4.2 (i).

(c) The Integration Firm Energy Capability, in the amount determined in paragraph 4.2 (j) shall at all times be available to and purchased by the Company, and the Company shall pay for all such power and energy at the rate hereinafter set forth.

(d) All energy delivered to the Company pursuant to paragraphs (a), (b) and (c) above, shall be classified by the Operating Representatives in accordance with paragraph 8.3 and shall be paid for by the Company in accordance with paragraph 9.1 of this agreement.

6.3 During each Operating Period, energy shall be made available to the Federal system from the Company system as follows:

(a) During drawdown periods: the amount of Operating Energy required and scheduled by the Administrator, but not exceeding the total amount determined under paragraph 4.2 (h) (2).

(b) All energy delivered to the Federal system pursuant to paragraph (a) above, shall be classified by the Operating Representatives in accordance with paragraph 8.3 and shall be paid for in accordance with paragraph 9.1 of this agreement.

ARTICLE VII. STORAGE OR OTHER ENERGY TRANSFERS

7.1 Either party, at its option, will accept during the Control Season energy deliveries by the other party, in addition to those provided for hereunder, which will enable the accepting party to store or hold water in such party's reservoirs; and on request of and as scheduled by the delivering party, such stored or equivalent water will thereafter be released through the accepting party's plants, whenever in such party's opinion it has generating capacity available for such purpose, and subject to the capacities of interconnecting facilities for the transfer of other power and energy provided for hereunder, and the energy produced by such releases will be returned to the delivering party at no cost; *provided, however*, that the obligation to return such energy will terminate whenever the reservoirs on the accepting party's system shall fill and spill.

ARTICLE VIII. SCHEDULING AND CLASSIFICATION OF ENERGY

8.1 The Operating Representatives shall prepare in advance hourly schedules of power and energy transfers, with simultaneous deliveries of more than one class of power being properly identified and accounted for each hour; and when so scheduled and agreed to by the Operating Representatives, energy transfers will be considered as having been effectively delivered or received by the parties hereto. Operating deviations from schedule shall be held to a minimum, properly accounted for, and corrected for under like conditions of water supply and load.

8.2 In the event it is necessary to reduce or interrupt operations hereunder to repair or maintain facilities, such reductions or interruptions will be arranged for as far in advance as feasible by mutual agreement of the parties. When such reduction or interruption, or other emergency or accidental interruption, restricts or interrupts the delivering or receiving of scheduled power and energy, the representatives shall adjust future schedules or deliveries, and properly account for all deviations from recorded schedules.

8.3 Power and energy to be transferred between the Federal and Company systems in accordance with the definitions heretofore set forth shall be classified and accounted for when scheduled, in accordance with the following descriptions:

(a) Operating energy delivered in accordance with paragraphs 6.1, 6.2 (a) and 6.3 (a);
(b) Integration energy delivered in accordance with paragraph 6.2 (b):
Class A: When unsalable to other customers of the United States;
Class B: When salable as low availability secondary energy;
Class C: When salable as priority interruptible secondary energy;
Class D: When salable as dump energy.
(c) Integration Firm Energy Capability delivered in accordance with paragraph 6.2 (c).
(d) Storage or other energy transfers under Article VII.

ARTICLE IX. CHARGES FOR SERVICE

9.1 The Company shall pay the United States for energy delivered under this agreement, in accordance with the classifications of the energy as in Article VIII set forth, at the following rates (copies of the rates presently in effect are attached hereto):
(a) Operating energy classified under paragraph 8.3 (a): Such energy shall be exchanged on basis 1 KWH equals 1 KWH.
(b) Integration energy classified under paragraph 8.3 (b):
Class A: No charge;
Class B: at Bonneville Power Administration Rate No S–1 in effect at the time;
Class C: at Bonneville Power Administration Rate No C–4 (as amended for Priority Interruptible Power) in effect at the time;
Class D: at Bonneville Power Administration Rate No H–3 in effect at the time.
(c) Integration Firm Energy Capability classified under paragraph 8.3 (c):— at Bonneville Power Administration Rate No C–4 in effect at the time.
9.2 Under this agreement, the Company will perform the services to the United States set forth in Article V at no cost to the United States, except as provided in paragraph 9.1 (a) above; *provided, however*, that such arrangement shall be subject to review each five years, and by written agreement such charges as may become appropriate shall be made.
9.3 The accounting period for settlements hereunder shall be the calendar month, unless otherwise agreed upon by the parties.
9.4 All bills for net amounts owed by Company to United States hereunder, except as otherwise herein provided, shall be due and payable on the fifteenth day of the month following the end of the period to which the bill is applicable, or on the tenth day following receipt by Company of a properly certified invoice or voucher, whichever date is later. In the event a portion of a bill, or of any other claim or adjustment arising hereunder, is disputed, payment shall be made when due of the portion not in dispute.

ARTICLE X. METERING AND POWER FACTOR

10.1 Electric energy will be made available to either party hereunder in the form of three phase current, alternating at a frequency of approximately sixty (60) cycles per second. Deliveries thereof at each point of delivery shall be made at the approximate voltage provided by the parties' facilities, and during the period specified, for such point. The amounts of electric energy and reactive power delivered at such point of delivery during each hour shall be the amounts determined, after making such adjustments for losses as may be indicated by using factors to be agreed upon by Operating Representatives, from measurements made by the United States' watt-hour, var-hour, and demand meters, respectively, installed, or to be installed, to record the flow of electric energy and reactive power at the place and in the circuit specified.
10.2 The United States will test the metering equipment owned by it at least once every two years, and if it is found to be inaccurate, will adjust or replace it. The Company will be given reasonable notice of the time when such tests will be made, and may have a representative present. At the request of the Company, the United States will make additional tests or inspections of the metering equipment owned by the latter in the presence of representatives of the Company, and the cost thereof will paid by the Company if the percentage of error is found to be less than two percent (2%) slow or fast.
10.3 If any test made shows any meter to be inaccurate by more than two percent (2%), or if any meter fails to register, an appropriate adjustment will be made in the amount of power delivered (a) for the actual period of incorrect

meter registration, if such period can be established, or (b) if not, for half the period from the date of the last preceding test of metering equipment; *provided, however*, that such period of adjustment shall not exceed six (6) months.

10.4 Each of the parties hereto will jointly plan and operate its system for mutual advantage and so that the flow of reactive power hereunder will not adversely affect the system of the other.

10.5 If any equipment or facilities of a party to this contract are, or are to be by the terms of this contract, located on the property of the other, a permit to install, test, maintain, inspect, replace, and repair during the term of this contract and to remove at the expiration of said term, such equipment and facilities, together with the right of ingress and egress at all reasonable times in such term, is hereby granted by the other party.

10.6 Each party shall have the right to read or inspect, at all reasonable times, upon request made to the other party, any and all meters mentioned in this contract which are installed on the property of such other party.

ARTICLE XI. UNCONTROLLABLE FORCES AND LIABILITY

11.1 Neither party shall be considered to be in default in respect to any obligation hereunder, if prevented from fulfilling such obligation by reason of uncontrollable forces. The term uncontrollable forces, for the purpose of this contract, shall mean any cause beyond the control of the party affected, including, but not limited to, failure of facilities, flood, earthquake, storm, lightning, fire, epidemic, act of God, war, riot, civil disturbance, strike, labor disturbance, or sabotage, which by exercise of due diligence and foresight such party could not reasonably have been expected to avoid. Either party rendered unable to fulfill any obligation by reason of uncontrollable forces shall exercise due diligence to remove such inability with all reasonable dispatch.

11.2 Each party shall defend and indemnify the other party against liability, loss, costs and expenses on account of injury (including death) to persons or destruction of or damage to property occasioned on or adjacent to the facilities on its side of the delivery points described herein, unless such injury or damage resulted from the sole negligence of the other party or of its officers, servants, agents or employees; *provided, however*, that each party shall be solely responsible for the claims of and payments to its employees and agents for injuries (including death) occurring in connection with their employment or arising out of any workmen's compensation law.

ARTICLE XII. GENERAL PROVISIONS

12.1 This agreement does not cancel, amend or otherwise affect Contract No. 14–03–001–11493, dated March 14, 1955, between the parties.

12.2 Nothing in this agreement shall be construed as a restriction or limitation on the Administrator to sell to preference or other customers of the United States the firm power which would be available to the Administrator without the existence of this agreement.

12.3 Nothing in this agreement shall be construed as a restriction or limitation on the Company in the sale of power and energy available to the Company hereunder, or in any way affecting the ability of the Company to perform its public utility responsibility to its customers in the areas now served and as such areas may be extended during the term of this agreement.

ARTICLE XIII. ARBITRATION

13.1 If at any time any dispute, difference or question shall arise between the parties concerning the application, construction or meaning of any of the terms or provisions of this agreement, except those dealing with rates and payment for power and energy, upon demand of either party the matter will be referred to arbitration. An offer of such reference to arbitration will be a condition precedent to any proceeding at law or in equity concerning such dispute, difference, or question: *provided, however*, that either party may without arbitration bring a proceeding to enjoin breach of this agreement.

13.2 Either party may serve written notice of demand for arbitration, naming one arbitrator. The party served with such notice shall appoint a second arbitrator, and the two so appointed shall appoint a third. In case of failure of the party served with notice to appoint a second arbitrator within ten (10) days, or failure of the two first appointed to appoint a third within ten (10) days after the appointment of the second, then the party demanding arbitration may, after

five (5) days' notice to the other party, apply for appointment of the second or third arbitrator, as the case may be, to any person who is a Judge of the United States District Court in Idaho or Oregon.

13.3 The arbitrators will hear such evidence as is submitted by the parties and will proceed to make a determination; *provided, however,* that the arbitrators will be entitled to call upon either party for additional information. The decision of a majority of the arbitrators will be binding upon the parties with respect to the matter submitted. All expenses of arbitration will be paid equally by the parties except that the compensation, if any, of the first and second members of the board of arbitration will be paid by the party by or for whom they were named.

ARTICLE XIV. INTEREST OF MEMBER OF CONGRESS

14.1 No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this agreement or to any benefit that may arise therefrom, but this provision shall not be construed to extend to this agreement if made with a corporation for its general benefit.

ARTICLE XV. REPRESENTATIVES AND NOTICES

15.1 For the purposes of this agreement, except as may be otherwise specifically provided herein, and until receipt of further notice in writing to the contrary, either party shall be entitled to regard as the authorized representative of the other person designated below:

Representative of United States: Administrator, Bonneville Power Administration

Representative of Company: President, Idaho Power Company

15.2 Any notice to be given by one party to the other in accordance with the provisions of this agreement, or with respect to a matter relating hereto, shall be deemed to be adequately given if sent by registered mail, deposited in a United States post office in Idaho or Oregon one day before the day as of which the notice is intended to be given, and addressed as follows:

Notice to United States, addressed to the
Administrator
Bonneville Power Administration
Portland 8, Oregon

Notice to Company, addressed to the
President, Idaho Power Company
1220 Idaho Street
Boise, Idaho

Either party may from time to time specify by notice in writing a different address to which notices are to be sent.

ARTICLE XVI. TERM AND APPROVAL OF CONTRACT

16.1 This agreement shall become effective as of the date first above written (subject to the provisions of paragraph 16.2), and shall remain in effect during the term of the Company's Federal Power Commission license (Project No. 1971) to the Company, ending July 31, 2005.

16.2 This agreement shall not be binding upon the parties hereto until it has been approved by the Secretary of the Interior, the Federal Power Commission, the Public Utilities Commissioner of Oregon, the Idaho Public Utilities Commission and the Public Service Commission of Nevada, but when so approved, shall be effective immediately.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed by their duly authorized officers as of the date first herein written.

UNITED STATES OF AMERICA,
DEPARTMENT OF THE INTERIOR,

[SEAL] By ----------
Bonneville Power Administrator.

IDAHO POWER COMPANY,

[SEAL] By ----------
President.

Attest:

Secretary.

AUGUST 26, 1957.

Mr. T. E. ROACH,
President, Idaho Power Co.,
Boise, Idaho.

DEAR MR. ROACH: Since the meeting the other day, at which time we discussed coordination of your projects and the Federal generation, I have contacted the Army engineers and the Pacific Northwest Power Co., and they have agreed to have someone present to represent them at the meeting on Wednesday, September 4, at 8:30 a. m. at the Bonneville office here in Portland.

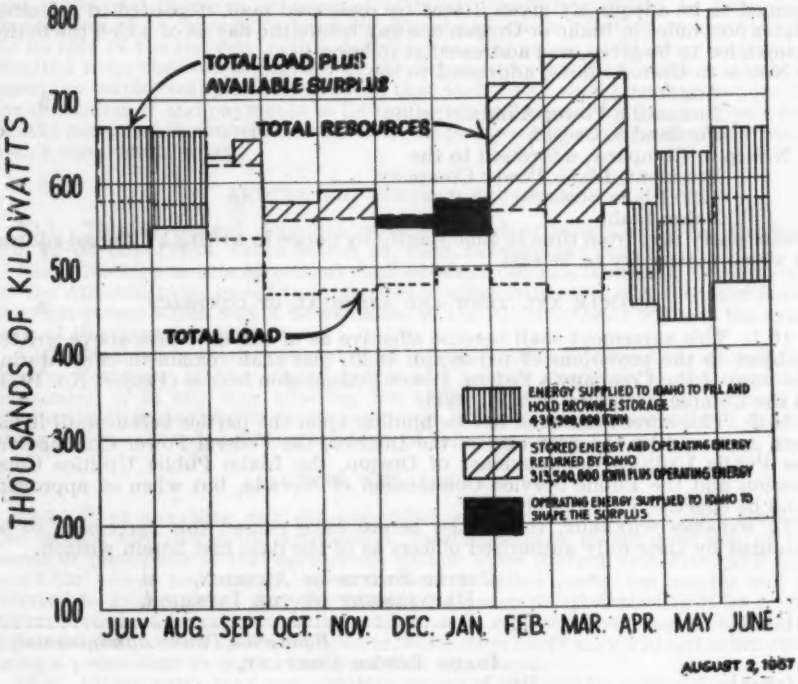
A second meeting will be scheduled for some time later, at which time it would be desirable if one of your top staff could be present. At this time we would discuss with the aid of these figures some of the policy items.

Sincerely yours,

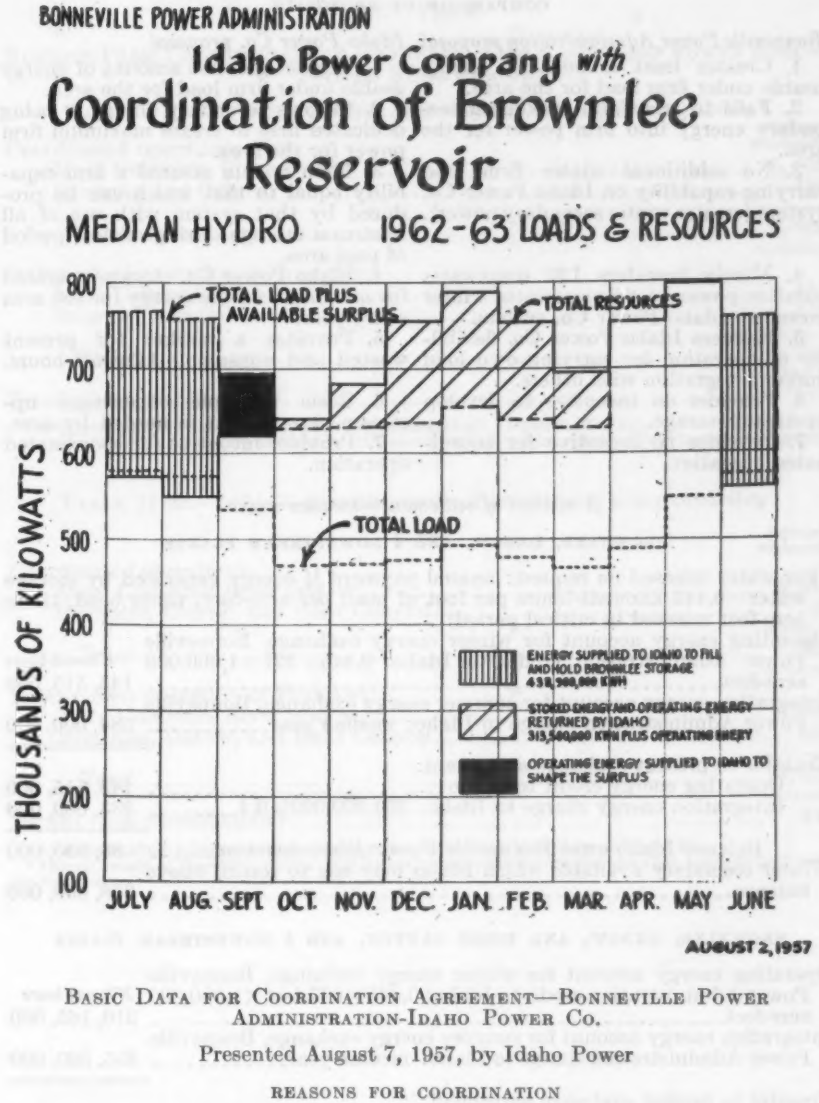
WM. A. PEARL, *Administrator.*

BONNEVILLE POWER ADMINISTRATION

Idaho Power Company
with
COORDINATION OF BROWNLEE RESERVOIR
CRITICAL HYDRO 1962-63 LOADS & RESOURCES



AUGUST 2, 1957


BONNEVILLE POWER ADMINISTRATION
Idaho Power Company with
Coordination of Brownlee Reservoir
MEDIAN HYDRO 1962-63 LOADS & RESOURCES
THOUSANDS OF KILOWATTS
800
700
600
500
400
300
200
100
TOTAL LOAD PLUS AVAILABLE SURPLUS
TOTAL RESOURCES
TOTAL LOAD
ENERGY SUPPLIED TO IDAHO TO FILL AND HOLD BROWNLEE STORAGE 458,900,000 KWH
STORED ENERGY AND OPERATING ENERGY RETURNED BY IDAHO 313,500,000 KWH PLUS OPERATING ENERGY
OPERATING ENERGY SUPPLIED TO IDAHO TO SHAPE THE SURPLUS
JULY AUG. SEPT. OCT. NOV. DEC. JAN. FEB. MAR. APR. MAY JUNE
AUGUST 2, 1957

BASIC DATA FOR COORDINATION AGREEMENT—BONNEVILLE POWER ADMINISTRATION-IDAHO POWER CO.

Presented August 7, 1957, by Idaho Power

REASONS FOR COORDINATION

1. Produce the maximum amount of firm power for the area.
2. Produce the maximum amount of otherwise useful energy for the area.
3. Increase total area firm capability by reason of stream diversity.
4. Increase total area firm capability by reason of load diversity.
5. Provide diversity of peak loads, breakdown reserve, and maintenance outages.
6. Assure to each utility a firm load capability during pool critical water conditions.
7. Distribute equitably the benefits received from headwater improvements.
8. Encourage upstream storage that is needed by the area.

COMPARISON OF PROPOSALS

Bonneville Power Administration proposal	*Idaho Power Co. proposal*
1. Creates least amount of energy usable under firm load for the area.	1. Creates greatest amount of energy usable under firm load for the area.
2. Fails to transform maximum secondary energy into firm power for the area.	2. Surplus secondary energy is being dedicated first to create maximum firm power for the area.
3. No additional winter firm load carrying capability on Idaho Power Co. system (creates winter secondary power).	3. Each system assured a firm capability equal to that which can be produced by that system with use of all upstream storage during critical period of pool area.
4. Merely transfers 120 megawatts summer power to 88 megawatts winter power on Idaho Power Co. system.	4. Idaho Power Co. storage operated for maximum usable energy for the area every year.
5. Reduces Idaho Power Co. flexibility of operation for carrying own load and/or integration with others.	5. Provides a market for present wasted and nonsalable kilowatt-hours.
6. Provides no incentive to develop upstream storage.	6. Basic principle encourages upstream storage that is needed by area.
7. Provides no incentive for coordinated operation.	7. Provides incentive for coordinated operation.

A method of settlement—median water

BROWNLEE, OXBOW, AND 4 DOWNSTREAM PLANTS

(For water released on request: annual payment ½ energy generated by storage water—0.445 kilowatt-hours per foot of head per acre-foot, times head, times acre-feet released in critical period)

	Kilowatt-hours
Operating energy account for winter energy exchange, Bonneville Power Administration credit to Idaho: 0.445×327×1,000,000 acre-feet	145, 515, 000
Integration energy account for summer energy exchange, Bonneville Power Administration charge to Idaho: median year	584, 000, 000
Transfer to present exchange agreement:	
Operating energy credit to Idaho	145, 515, 000
Integration energy charge to Idaho: 584,000,000×0.4	233, 600, 000
Balance Idaho owes Bonneville Power Administration	88, 085, 000
Winter secondary available which Idaho may use to return above balance	378, 000, 000

BROWNLEE, OXBOW, AND HELLS CANYON, AND 8 DOWNSTREAM PLANTS

	Kilowatt-hours
Operating energy account for winter energy exchange, Bonneville Power Administration credit to Idaho: 0.445×697 feet×1,000,000 acre-feet	310, 165, 000
Integration energy account for summer energy exchange, Bonneville Power Administration charge to Idaho: median year	855, 560, 000
Transfer to present exchange agreement:	
Operating energy credit to Idaho	310, 165, 000
Integration energy charge to Idaho: 855,560,000×0.4	342, 224, 000
Balance Idaho owes Bonneville Power Administration	32, 059, 000
Winter secondary available which Idaho may use to return above balance	617, 799, 000

WET YEAR

BENEFIT FROM COORDINATION OF BROWNLEE WITH NORTHWEST POWER POOL—1941–63 STREAMFLOWS

TABLE I–B.—*1962–63 operating year—System prime power capability* [1]

	Average megawatts
Coordinated operation:	
Main Columbia River system	6, 503
Brownlee and Oxbow	456
Total	6, 959
Independent operation of Brownlee:	
Main Columbia River system	6, 454
Brownlee and Oxbow	338
Total	6, 792
Benefit from coordination [2]	167

[1] Average capability during storage drawdown season (Sept. 1 through Mar. 31).
[2] Annual benefit at Brownlee and Oxbow with coordinated operation amounts to 44 average megawatts.

TABLE II–B.—*1964–65 operating year—System prime power capability* [1]

	Average megawatts
Coordinated operation:	
Main Columbia River system	6, 512
Brownlee, Oxbow, and Hells Canyon	710
Total	7, 222
Independent operation of Brownlee:	
Main Columbia River system	6, 449
Brownlee, Oxbow, and Hells Canyon	563
Total	7, 012
Benefit from coordination [2]	210

[1] Average capability during storage drawdown season (September 1 through March 31).
[2] Annual benefit at Brownlee, Oxbow, and Hells Canyon with coordinated operation amounts to 47 average megawatts.

IDAHO POWER CO.—LOADS AND RESOURCES WITH INTEGRATED BROWNLEE REGULATIONS

TABLE III–B.—*1962–63, 1941–42 hydro with Brownlee regulations*

[In megawatts]

	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
Average:												
Idaho Power Co., load	582	574	534	468	471	476	494	479	467	488	548	575
Present system hydro	239	239	240	243	251	253	261	254	246	281	257	265
Brownlee generation	208	232	271	273	231	329	360	360	299	315	360	360
Oxbow generation	83	92	108	109	129	135	153	172	174	176	166	165
U. S. Bureau of Reclamation surplus or (deficiency)	30	29	19	(6)	(5)	(7)	3	15	27	25	38	43
Total hydro	560	592	638	619	696	710	777	801	746	797	821	833
Surplus or (deficiency)	(22)	18	104	151	225	234	283	322	279	309	273	258
Peak:												
Idaho Power Co., load	772	769	731	645	663	670	692	654	627	667	744	788
Present system hydro	359	359	361	362	362	362	360	361	361	361	359	359
Brownlee generation	414	414	414	414	414	414	414	351	248	383	414	414
Oxbow generation	226	226	226	226	226	226	226	226	226	226	226	226
U. S. Bureau of Reclamation surplus or (deficiency)	26	11	(13)	77	118	115	115	120	123	81	28	27
Total hydro	1,025	1,010	988	1,079	1,120	1,117	1,115	1,058	958	1,051	1,027	1,026
Surplus	253	241	257	434	457	447	423	404	331	384	283	243

TABLE IV–B.—*1964–65, 1941–42 hydro with Brownlee regulation*

[In megawatts]

	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
Average:												
Idaho Power Co., load	636	626	582	507	510	516	538	520	506	529	598	628
Present system hydro	239	239	240	243	251	253	261	254	246	281	257	265
Brownlee generation	208	232	271	273	321	329	360	360	299	315	360	360
Oxbow generation	83	92	108	109	129	135	153	172	174	176	166	165
Hells Canyon generation	150	167	196	197	235	245	279	313	316	320	301	299
U. S. Bureau of Reclamation surplus or (deficiency)	24	22	12	(14)	(12)	(15)	(2)	9	22	18	33	38
Total hydro	704	752	827	810	924	947	1,051	1,108	1,057	1,110	1,117	1,127
Surplus	68	126	245	303	414	431	513	588	551	581	519	499
Peak:												
Idaho Power Co., load	847	843	801	703	723	732	756	713	683	727	815	859
Present system hydro	359	359	361	362	362	362	360	361	361	361	359	359
Brownlee generation	414	414	414	414	414	414	414	351	248	383	414	414
Oxbow generation	226	226	226	226	226	226	226	226	226	226	226	226
Hells Canyon generation	320	400	400	400	400	400	400	400	400	400	400	400
U. S. Bureau of Reclamation surplus or (deficiency)	15	(1)	(24)	66	106	104	106	111	114	71	20	19
Total hydro	1,334	1,398	1,377	1,468	1,508	1,506	1,506	1,449	1,349	1,441	1,419	1,418
Surplus	487	555	576	765	785	774	750	736	666	714	604	559

IDAHO POWER CO.—LOADS AND RESOURCES

INDEPENDENT OPERATION

TABLE V–B.—*1962–63, 1941–42 hydro*

[In megawatts]

	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
Average:												
Idaho Power Co., load	582	574	534	468	471	476	494	479	467	488	548	575
Present system hydro	239	239	240	243	251	253	261	254	246	281	257	265
Mid-Snake plants	423	416	385	341	335	340	340	320	304	524	535	550
U. S. Bureau of Reclamation surplus or (deficiency)	30	29	19	(6)	(5)	(7)	3	15	27	25	38	43
Total hydro	692	684	644	578	581	586	604	589	577	830	830	858
Surplus	110	110	110	110	110	110	110	110	110	342	282	283
Peak:												
Idaho Power Co., load	772	769	731	645	663	670	692	654	627	667	744	783
Present system hydro	359	359	361	362	362	362	360	361	361	361	359	359
Mid-Snake plants	640	622	568	536	512	536	500	515	484	640	640	640
U. S. Bureau of Reclamation surplus or (deficiency)	26	11	(13)	77	118	115	115	120	123	81	28	27
Total hydro	1,025	992	916	975	992	1,013	975	996	968	1,082	1,027	1,026
Surplus	253	223	185	330	329	343	283	342	341	415	283	243

TABLE VI–B.—*1964–65, 1941–42 hydro*

[In megawatts]

	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
Average:												
Idaho Power Co., load	636	626	582	507	510	516	538	520	506	529	598	628
Present system hydro	239	239	240	243	251	253	261	254	246	281	257	265
Mid-Snake plants	660	652	617	563	558	565	566	544	525	841	801	891
U. S. Bureau of Reclamation surplus or (deficiency)	24	22	12	(12)	(12)	(15)	(2)	9	22	18	33	38
Total hydro	923	913	869	794	797	803	825	807	793	1,140	1,091	1,194
Surplus	287	287	287	287	287	287	287	287	287	611	493	566
Peak:												
Idaho Power Co., load	847	843	801	703	723	732	756	713	683	727	815	859
Present system hydro	359	359	361	362	362	362	360	361	361	361	359	359
Mid-Snake plants	960	1,014	959	924	896	916	875	878	917	1,040	1,040	1,040
U. S. Bureau of Reclamation surplus or (deficiency)	15	(1)	(24)	66	106	104	106	111	114	71	20	19
Total hydro	1,334	1,372	1,296	1,352	1,364	1,382	1,341	1,350	1,392	1,472	1,419	1,418
Surplus	487	529	495	649	641	650	585	637	709	745	604	559

LETTER OF SENATOR JAMES E. MURRAY TO DR. WILLIAM A. PEARL, ADMINISTRATOR, BONNEVILLE POWER ADMINISTRATION

JANUARY 3, 1958.

WILLIAM A. PEARL,
Administrator, Bonneville Power Administration,
Portland, Oreg.

DEAR DR. PEARL: Thank you for the information transmitted to me on November 6, 1957. I find upon examination of it that no consideration appears to have been given in any of the negotiations which so far have transpired to the furnishing of power to the rural electric cooperatives and Government purchasers in the southern Idaho area. Do you conceive that the preference principles in the Bonneville Power Act have no application to this type of situation?

I would also like to receive from you an elaboration or explanation of one of the exhibits entitled "A Method of Settlement." This exhibit purports to be an extension for a median water year of the method of settlement between Idaho Power and Bonneville of winter storage for summer energy. If I read this exhibit correctly, the item entitled, "Integration Energy Charge to Idaho, 855,560,000 times 0.4" is an arithmetical expression of the concept that 2½ kilowatt-hours of Bonneville Power is to be exchanged for 1 kilowatt-hour of power generated by the Idaho Power Co. facilities.

I would appreciate hearing from you on these matters at your earliest convenience and if possible by the 20th of January.

Very truly yours,

JAMES E. MURRAY,
Chairman, Interior and Insular Affairs Committee.

REPLY OF ADMINISTRATOR PEARL TO SENATOR JAMES E. MURRAY

DEPARTMENT OF THE INTERIOR,
BONNEVILLE POWER ADMINISTRATION,
Portland, Oreg., January 15, 1958.

Hon. JAMES E. MURRAY,
United States Senate,
Washington, D. C.

DEAR SENATOR MURRAY: This will acknowledge your letter of January 3 with reference to our pending study and discussion of the problem of coordination of the Idaho Power Co.'s Snake River project with the Federal Columbia River system.

Furnishing power from the Federal Columbia River system to the rural electric cooperatives and other Government customers in the southern Idaho area presents numerous questions which are under study.

On December 20, 1957, Assistant Secretary Aandahl addressed a letter to Mr. E. H. Paskett, president of the Raft River Rural Electric Cooperative, Inc., Malta, Idaho, setting forth the Department's views to date on this subject. I had been under the impression that you were furnished a copy of this letter, but in the event this is not the case, I am enclosing a copy of that letter and of a further reply to Mr. Paskett, together with copies of Mr. Paskett's letters to the Department.

The exhibit entitled "A Method of Settlement" to which you refer was a suggestion presented by the Idaho Power Co. at a meeting on August 7, 1957. This suggestion proposed that the Idaho Power Co. would pay 1 mill per kilowatt-hour for surplus summertime energy used to fill the Brownlee Reservoir and to carry its summer load. Bonneville's exchange accounts are settled at our "H" (dump) rate of 2½ mills per kilowatt-hour. In order to put this 855,560,000 kilowatt-hours in an exchange account at a 1 mill per kilowatt-hour rate, it would be necessary to multiply the number of kilowatt-hours by 0.4. The resulting balances in the account would be settled at a rate of 2½ mills per kilowatt-hour.

This suggestion has never received serious consideration by our staff, and at this meeting the Idaho Power Co. representatives were advised that no special rate would be considered and that any settlement would have to be made at our regular Federal Power Commission approved rates.

Sincerely yours,

WM. A. PEARL, *Administrator.*

RAFT RIVER ELECTRIC COOPERATIVE, INC.,
Malta, Idaho, October 11, 1957.

HON. FRED A. SEATON,
Secretary of Interior, Department of the Interior,
Washington, D. C.

DEAR MR. SECRETARY: We have learned on good authority that the Idaho Power Co. is seeking to negotiate a contract with Bonneville Power Administration for the exchange of power between southern Idaho and the rest of the Columbia Basin over their LeGrande tie, in which they are asking for 3 kilowatts of summer pumping power for 1 kilowatt of storage released from Brownlee.

We urge you to consider that the execution of such a contract fundamentally puts us in the Bonneville marketing area since we are tied right to the Idaho power transmission grid with our transmission line.

We are desperately in need of more power, especially irrigation pumping power. We were informed by the Bureau of Reclamation that "we were lucky we didn't have the switch pulled on us" last summer.

We have tried to buy power from Idaho Power Co. but as yet have not had a better rate quoted than 13 mills which is much higher than we can be expected to pay; since Idaho Power delivers irrigation pumping power to their own consumers in this area for approximately 6.5 mills.

Here we have two separate marketing agencies in the same river basin, both under the Department of the Interior and physically integrated. The one agency is short of power to serve its preference customers and the other has an abundance of power available at the time the other is short, clearly then it is the responsibility of the Secretary of the Interior to act according to the provisions of the preference law and take action to insure that the preference customers who are in need are served.

The Government as well as the people of the Northwest would benefit greatly if the two systems were integrated and coordinated.

We respectfully request that in connection with the present negotiations for exchange of power with the Idaho Power Co. under the requirements of the Federal Power Commission license for Brownlee Dam that your administration stipulate as a condition for any contract that the Idaho Power Co. agree to wheel Columbia River power or other Government energy under Bonneville Power Administration standard wheeling agreements to all preference customers within the reach of Idaho Power Co. facilities.

We furthermore respectfully urge that any exchange or sales contract be immediately null and void if the company declines at any time to wheel to preference customers.

Very truly yours,

EDWIN H. PASKETT,
President, Raft River Rural Electric Cooperative, Inc.

DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D. C., December 20, 1957.

MR. EDWIN H. PASKETT,
Raft River Rural Electric Cooperative, Inc.,
Malta, Idaho.

DEAR MR. PASKETT: This is in further reply to your letter of October 11 in which you request that the Department give consideration to working out an arrangement whereby your cooperative will receive additional Government power for irrigation pumping. You also request that we use the occasion for the negotiation of an exchange agreement with the Idaho Power Co. for the coordination of its Brownlee and Oxbow projects with the Northwest power pool as a means of getting wheeling provisions for Columbia River power.

In this instance, coordination of the Idaho Power Co's Brownlee and Oxbow plants with the Northwest power pool and the wheeling of Bonneville Power Administration secondary energy by the company are not interrelated and one should not be used as a leverage for the other. The FPC license requires coordination, and the Department cannot as a matter of right under the license require the Idaho Power Co. to contract to wheel Columbia River power for the Government.

The staffs of the Bureau of Reclamation and the Bonneville Power Administration are making studies which will throw additional light on the feasibility

of the Bureau of Reclamation utilizing Bonneville Power Administration dump energy to serve additional power to your cooperative and others in southern Idaho. However, we must caution that there is a serious question as to whether this dump energy would be of any real benefit to your cooperative without the availability of some other source of firming energy and a satisfactory wheeling arrangement. It must also be borne in mind that the wheeling distance is in excess of 300 miles and the wheeling cost would have a substantial impact on the economic feasibility.

Upon completion of the above-mentioned studies, we shall advise you further regarding this matter. In the meantime, the Bureau of Reclamation regional office will be in touch with you on the various aspects of the problem.

Sincerely yours,

(Signed) FRED G. AANDAHL,
Assistant Secretary of the Interior.

DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D. C., December 20, 1957.

Mr. H. M. HINTZE,
President, Lost River Electric Cooperative, Inc.,
Mackay, Idaho.

DEAR MR. HINTZE: This is in further reply to your letter of October 30 in which you request that the Department give consideration to working out an arrangement whereby your cooperative will receive additional Government power for irrigation pumping. You also request that we use the occasion for the negotiation of an exchange agreement with the Idaho Power Co. for the coordination of its Brownlee and Oxbow projects with the northwest power pool as a means of getting wheeling provision for Columbia River power.

In this instance, coordination of the Idaho Power Co.'s Brownlee and Oxbow plants with the northwest power pool and the wheeling of the Bonneville Power Administration secondary energy by the company are not interrelated and one should not be used as a leverage for the other. The FPC license requires coordination, and the Department cannot as a matter of right under the license require the Idaho Power Co. to contract to wheel Columbia River power for the Government.

The staffs of the Bureau of Reclamation and the Bonneville Power Administration are making studies which will throw additional light on the feasibility of the Bureau of Reclamation utilizing Bonneville Power Administration dump energy to serve additional power to your cooperative and others in southern Idaho. However, we must caution there is a serious question as to whether this dump energy would be of any real benefit to your cooperative without the availability of some other source of firming energy and a satisfactory wheeling arrangement. It must also be borne in mind that the wheeling distance is in excess of 300 miles and the wheeling cost would have a substantial impact on the economic feasibility.

Upon completion of the above-mentioned studies, we shall advise you further regarding this matter. In the meantime, the Bureau of Reclamation regional office will be in touch with you on the various aspects of the problem.

Sincerely yours,

FRED G. AANDAHL,
Assistant Secretary of the Interior.

RAFT RIVER ELECTRIC COOPERATIVE, INC.,
Malta, Idaho, January 2, 1958.

Mr. FRED G. AANDAHL,
Assistant Secretary of the Interior,
Washington, D. C.

DEAR MR. AANDAHL: Reference is made to your reply of December 20, 1957, to our letter of October 11 in which we requested that, in order to relieve the power shortage in southern Idaho and to financially enhance the Federal Government's power operations in the area, the Bureau of Reclamation, region 1, attempt to work out an arrangement with Bonneville Power Administration to wheel some power into Idaho from the Bonneville system.

We note that you make specific reference that the FPC requirement that Idaho Power Co. coordinate their Brownlee Dam with the northwest power pool is in no way related to the wheeling of power between the northwest power pool and the southern Idaho power pool.

After all the northwest power pool is practically all Bonneville Administration power and the southern Idaho pool is, in a very substantial part, Bureau of Reclamation power.

If coordination of the two systems does not mean the exchange of energy for the greatest benefit to the most people concerned, then what does it mean?

Does it mean only that Idaho Power Co. is to be allowed to sit between the two systems owned by the people and reap the benefits of power exchange which in reality gives them firm power from the Government plants at dump power rates? Is this to be allowed especially when the company shows no consideration for the urgent requirements of a large block of the public for power at a reasonable cost?

We also note that the staffs of the Bureau and of Bonneville are studying the situation to see if there is feasibility of the Bureau using any of Bonneville's dump power.

We also have had studies made that show that the Bureau has huge blocks of secondary energy that only need a small amount of firming in 1 year out of 22 to make it firm power.

Since Bonneville's critical water year has not coincided, in the past, with the Bureau's critical water year it would appear that there are indeed great benefits to be had with an exchange agreement.

The fact that we are 300 miles from Bonneville system should be no great disadvantage since southern Oregon is about the same distance, yet they enjoy a 4-mill rate from Bonneville Power.

Another fact which indicates that the wheeling distance is of no consequence is that Idaho Power Co. is asking for 200,000 kilowatts of Bonneville Power to be wheeled into their system and we are situated very near the heart of that system.

I am sure that when all the facts concerning the situation are viewed with clarity and an attitude of fairmindedness that a solution to the problem will be found that will be of benefit to all concerned.

Very truly yours,

EDWIN H. PASKETT, *President.*

DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D. C., January 14, 1958.

Mr. EDWIN H. PASKETT,
President, Raft River Electric Cooperative, Inc.,
Malta, Idaho.

DEAR MR. PASKETT: Thank you for your letter of January 2 referring to the possibility of supplying surplus Bonneville Power Administration energy to your cooperative.

We would suggest that you make available to the Bureau of Reclamation and the Bonneville Power Administration, if you have not already done so, the studies your organization has made with respect to secondary energy on the Bureau's system and its relationship to the BPA system operations.

In the discussion in our December 20, 1957, letter of the relationship of wheeling to the problem of coordination, we intended only to indicate that the wheeling of federally generated power to the Government's customers is not a requirement imposed upon the Idaho Power Co. by the FPC license provision with respect to coordination by the company with the northwest power pool.

We are giving continuing attention to power marketing activities in the Pacific Northwest as they relate to the problems concerning the Raft River Electric Cooperative. As previously indicated, you will be advised as to our progress.

Sincerely yours,

(Signed) FRED G. AANDAHL,
Assistant Secretary of the Interior.

LETTER OF SENATOR JAMES E. MURRAY TO SECRETARY SEATON IN REGARD TO WHEELING

UNITED STATES SENATE,
January 27, 1958.

Hon. FRED A. SEATON,
Secretary of the Interior,
Washington, D. C.

DEAR MR. SECRETARY: I have had the opportunity of reviewing the correspondence between your Department and certain rural electric cooperatives in southern Idaho, and between your Department and Senator Church in which Assistant Secretary Fred G. Aandahl has acted as spokesman for the Department; particularly I have reviewed Mr. Aandahl's letter of December 20, 1957, which was sent to a number of the cooperatives. This letter raises questions having to do with your supervisory responsibility in the area of the Bonneville Power Act and certain other public project authorization bills, and I would like your views on these policy questions.

Mr. Aandahl, in connection with the requests from the cooperatives for assistance in working out arrangements whereby they might receive additional Government power for irrigation pumping, has told the cooperatives that there is no interrelation between coordination of Idaho Power Co. plants at Brownlee and Oxbow with the northwest power pool and the wheeling of Bonneville power. He also raises the question of whether the wheeling distance might not substantially adversely affect the economic feasibility. He leaves the matter of further negotiations to the regional office of the Bureau of Reclamation in Boise.

I believe that the statement made by Justice Douglas in *Federal Power Commission* v. *Idaho Power Company* (344, U. S. 17, 23, 1952) is relevant on Mr. Aandahl's first point. Therein Justice Douglas, for the Court, said:

"Protection of the public domain, conservation of water-power resources, development of comprehensive plans for the waterways—each of these might in the facts of a case be sufficient to authorize the grant of permission to a public utility company to use the public domain provided it agreed to use its excess capacity to transmit Government power."

When Mr. Aandahl says, as he does, that "the Department cannot as a matter of right under the license require the Idaho Power Co. to contract to wheel Columbia River power for the Government," I think he equivocates on the basic issue. I think this for two reasons:

(*a*) In the first place, the United States is not precluded by the FPC license from inserting whatever terms and conditions it legally might in its contract with the Idaho Power Co. I don't see anything about the wheeling agreement which would make this subject matter improper for consideration, and I don't see anything improper in the

Secretary of the Interior suggesting to Bonneville Power Administration that negotiations be conducted to this end.

(*b*) Furthermore, it is my understanding that some of the transmission lines of Idaho Power Co. of necessity must traverse public lands. Is there any reason why you, as Secretary, could not reinstitute a regulation to require wheeling as a condition of the use of these public lands?

The basic policy question avoided by Mr. Aandahl, as I see it, is the question whether your Department takes the view that the Government has any responsibility whatever to these southern Idaho preference customers. If you feel, as I do, that it does, then there is adequate legal basis for the Government to make such responsibility effective.

I am very much surprised that Mr. Aandahl raises the question of economic feasibility of wheeling to the preference customers in the face of the fact that obviously Idaho Power Co. considers the distance not infeasible.

Further, the very fact that this question was raised indicates that at least some officials in your Department accept a position detrimental to the United States on the question of wheeling cost. If I understand wheeling arrangements, they contemplate only the utilization of unused or excess capacity. This being the case, cost of wheeling the Government power would be nominal. If, however, price of wheeling (as opposed to cost) is negotiated on the basic assumption that the Government cannot require Idaho Power Co. to wheel, then price partakes of the nature of tribute to be paid to the private power company limited only by the amount the Government would have to pay to install its own transmission lines. It is offensive to me that public power users, such as these co-ops, should pay tribute to Idaho Power Co. for the use of excess or unused (i. e., otherwise wasted) capacity. This represents economic waste.

I hope you will give this matter your earnest consideration, for it is only in the framework of thought-out administrative policy that the necessity for additional legislation can be properly assessed.

Sincerely,

JAMES E. MURRAY, *Chairman.*

REPLY OF ACTING SECRETARY CHILSON TO SENATOR MURRAY IN REGARD TO WHEELING

DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D. C., February 17, 1958.

Hon. JAMES E. MURRAY,
United States Senate, Washington, D. C.

DEAR SENATOR MURRAY: Thank you for your letter of January 27 regarding the rural electric cooperatives in southern Idaho. We are giving continuing attention to these problems and will be pleased to keep you advised as to the progress of our studies.

We are pleased to receive your comments. However, we must observe that any lines constructed by the company in connection with Brownlee would come under the jurisdiction of the Federal Power Commission and that the problem of wheeling is not resolved by the coordination requirement of the FPC license.

If wheeling arrangements are to be consummated they must be arrived at through contract negotiations. The Department, of course, possesses authority to enter into a wheeling agreement for purposes of southern Idaho power marketing. However, that not being embraced in the coordination requirement, a wheeling agreement, if reached, must be premised upon contract negotiation elements outside the license requirements of coordination per se.

We are, as you know, now serving the preference customers in southern Idaho. Since we are desirous of assisting these customers in increasing their power supply, we are exploring the available means of making surplus power from the Bonneville area available to the Bureau of Reclamation for additional service to their load area. Among the matters under consideration are the characteristics of power that might be made available, economic factors and the wheeling problem.

Sincerely yours,

HATFIELD CHILSON,
Acting Secretary of the Interior.

LETTER OF SENATOR FRANK CHURCH TO SENATOR JAMES E. MURRAY

UNITED STATES SENATE,
COMMITTEE ON INTERIOR AND INSULAR AFFAIRS,
March 10, 1958.

Hon. JAMES E. MURRAY,
Chairman, Interior and Insular Affairs,
Senate Office Building, Washington, D. C.

DEAR SENATOR MURRAY: Information I have received indicates that the negotiations between the Idaho Power Co. and the Bonneville Power Administration, on the interchange and exchange of power between their two systems after Brownlee is constructed, are at quite an advanced stage.

As yet I have no satisfactory assurances in the interest of the southern Idaho cooperatives and other public power users.

I hope, therefore, that you are still giving consideration to the holding of hearings to inquire into this matter; and, if you are, I would like to participate.

Sincerely,

FRANK CHURCH.

LETTER OF ASSISTANT SECRETARY FRED G. AANDAHL SUBMITTING SUPPLEMENTAL DATA ON NEGOTIATIONS

DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, March 24, 1958.

Hon. JAMES E. MURRAY,
Chairman, Committee on Interior and Insular Affairs,
United States Senate, Washington, D. C.

DEAR SENATOR MURRAY: Your telegram of March 5 to the Bonneville Power Administrator requested that he bring you up to date on the negotiations with the Idaho Power Co. relative to coordination of its Snake River developments now under construction with the Northwest Power Pool.

There have been several meetings with the Idaho Power Co. during the period since November 6, 1957, but no letters or studies were exchanged with the company during this time.

The Administrator has forwarded to us for transmittal to you the enclosed copies of reports of meetings which will bring you up to date on the negotiations since our earlier submittal of documents to you on November 6, 1957.

As in the case of our November 6, 1957, transmittal, we wish to emphasize the exploratory and preliminary character of the present discussions.

You may be assured that in arriving at arrangements for coordination, whether they take the form of an interchange arrangement or of a sale of energy from the Government to the company, or a combination of the two, we shall continue to adhere to the fundamental principles which we outlined in our letter to you of November 6, 1957. These principles, which will govern the terms of the exchange are that it should be in a ratio equitable to both parties taking cognizance of the fact that power exchanged is in a large degree surplus to the requirements of the generating entity at the time of its generation. Any sale of power which may accompany the exchange will be at Bonneville's existing standard rate for the class of service involved. The S–1 rate in which the company has expressed interest is not an approved rate and cannot be used in these negotiations. The coordination of the licensed projects with the Northwest Power Pool being required as a condition of the license issued by the United States, it is likewise fundamental that the generation at downstream Federal plants from water released at Brownlee are not to be considered in determining the ratio for the exchange of energy.

We are happy to keep your committee fully informed on the progress of our discussions with the company. As we stated in concluding our letter of November 6, 1957, before any arrangements are formalized it is also our intention to thoroughly discuss them with the Government's customers, customer associations and other interested groups as represented by the Bonneville Regional Advisory Council.

Sincerely yours,

FRED G. AANDAHL,
Assistant Secretary of the Interior.

26447—58——21

CONFERENCE AND TELEPHONE CALL REPORT

NOVEMBER 12, 1957.

To: Office of the Administrator.
From: Miller Evans, Director of O. and M.
Idaho meeting of November 7, 1957: For Idaho Power Co., Finas Harvey, Bob Hogg. For BPA: Messrs. Pearl, Coulter, Starr, Morthland, Mohler, Evans, McIntyre, Conkling, Jourolmon.

The meeting was called at the request of Dr. Pearl primarily to obtain an indication of the benefits of coordination between the Administration's system and that of the Idaho Power Co., and to obtain concurrence, if possible, from the Idaho representatives of the indicated benefits. These benefits were summarized on the blackboard by Mr. McIntyre, with the help of Mr. Mohler, as follows:

Coordination of BPA and Idaho systems

[Megawatts]

	(1)	(2)
Federal system coordinated with Idaho	3,895	3,890
Federal system isolated	3,844	3,841
[1] In 1962-63 with Brownlee and Oxbow gain	51	49
[2] In 1964-65 with Brownlee, Oxbow and Hells Canyon, less loss on Federal system	5	6
Net gain on Federal system	46	43
Idaho system coordinated operation and under 1936-37 conditions	568	752
Idaho system isolated and under 1934-35 conditions	505	672
Gain from 1934-35 to 1936-37 conditions due to annual diversities	63	80
Gain by seasonal exchange of energy on both systems	93	129
(From above) Net gain on Federal system	46	43
Total gain on 2 systems	202	252

Using ratios of exchange of 10/14 [3] [5] and 10/10,[4] [6] benefits accrue as shown:

	10/14 (3)	10/10 (4)	10/14 (5)	10/10 (6)
BPA	46	46	43	43
Idaho	86	70	105	81
BPA	70	86	104	128
Total gain	202	202	252	252

NOTE.—Under condition 3, 500 million kilowatt-hours goes to Idaho and 357 million kilowatt-hours is returned to BPA.
Under condition 4, the exchange is 10/10 and is therefore even exchange of 441 million kilowatt-hours.
Under condition 5, 741 million kilowatt-hours goes to Idaho and 529 million kilowatt-hours is returned to BPA.
Under condition 6, the exchange is 10/10 and is therefore an even exchange of 652 million kilowatt-hours.

It will be noted that under condition 1, for example, which occurs in 1962–63 with Brownlee and Oxbow in operation, there is a gain of 46 megawatts on the Federal system. Under this same condition the gain from Idaho's critical year of 1934–35 to the Administration's critical year of 1936–37 is 63 megawatts. The gain by seasonal exchange of energy, again under condition 1 is 93 megawatts making a total gain to the two systems of 202 megawatts.

Under condition 2, that is 1964–65, and with Hells Canyon added, there is a similar gain of 252 megawatts. Dr. Pearl asked the Idaho people if they agreed on the above figures showing gains to the two systems. They were in "substantial agreement" which means, according to Mr. Hogg, that the variation in their figures might be 4 or 5 megawatts but no more.

The latter part of the tabulation indicates the sharing of benefits under both the above-mentioned conditions using a 10/14 ratio of exchange and a 10/10 ratio of exchange. These data were placed on the board primarily for the edification of those present and in no way were intended to indicate that the Idaho people concurred in this apportionment, which they definitely do not.

There was considerable discussion on the overall subject of coordination but the above tabulation can well reflect the substance of the meeting. There was no material exchanged; the discussion was entirely from the data presented on the blackboard.

CONFERENCE AND TELEPHONE CALL REPORT

DECEMBER 20, 1957.

To: Office of the Administrator
From: Bernard Goldhammer

Meeting on December 18, 1957, with Idaho Power Co.
Present were:
For Idaho Power Co.: Robert A. Hogg, R. E. Gale, John Kimball, (all of Boise, Idaho).
For BPA: Dr. Pearl, J. Lane Morthland, R. L. Conkling, Miller Evans, E. D. Ostrander, E. C. Starr, H. M. McIntyre, B. Goldhammer, R. C. Coulter (ORS), Leon Jourolmon (ORS).
Ellis L. Nut, United States Department of Agriculture, Portland.
Mark L. Nison, Corps of Engineers, NPD, Portland.
Harold Nelson, Bureau of Reclamation, Boise, Idaho.

Mr. Kimball asked permission to review Idaho's position, particularly for the information of the advisory board, since this was the first general meeting with them. The main points of Idaho's position relative to coordination are as follows:
(1) That the pool critical year be used to determine Idaho Power's firm capability.
(2) That Idaho should be entitled to the generation on its own system.
(3) That Idaho should participate in the downstream benefits, which result from the project they are building.
(4) That winter energy be recognized as being more valuable than summer energy, particularly since capacity is necessary for the winter energy and additional capacity is not necessary for the summer energy.
(5) That the summer energy required by Idaho should be on a firm guaranteed basis.

Mr. Kimball felt that their position was justified by the analysis and interim reports of the FPC task force on the upstream-downstream situation.

Mr. Kimball stated that they have had no indication to date that BPA would accept the above principles. Time is short for them to make a coordination agreement in that they expect to start filling the Brownlee Reservoir on May 1, 1958. He stated that Idaho has contracts with Utah Power & Light, Washington Water Power, and Pacific Power & Light to dispose of their surplus. He further stated that these agreements are now firm. Idaho plans to build a line to the Mountain Sheep site where they will tie to a line that Washington Water Power is building south from Lewiston. Target date for energization of this line is November 1, 1958.

Mr. Kimball further stated that they proposed to operate in coordination as required under their license, but he stated that coordination could probably be achieved with other utilities than with BPA. He says they are studying this situation now and are not sure whether such arrangements could result in full coordination. However, regardless of these studies, they would still like a contract with BPA. Mr. Kimball further stated that he felt the summer energy that they require should be sold by BPA at a reasonable price and they would like BPA to submit a basis for the coordination. Mr. Kimball then asked Mr. Hogg to go on from there with the reasons for coordination. Mr. Hogg reviewed the reasons for coordination which basically are to keep cost of service to ultimate consumers as low as possible and to increase the firm capability of their system. He also reviewed the preliminary contract they had submitted to us in 1956.

Dr. Pearl said he wished to emphasize that there was no agreement as yet but before discussing coordination with Idaho, there were two items he wished to bring up. These were:
(1) Wheeling to Harney Electric Coop since Harney is in the BPA marketing area.
(2) Wheeling to the Bureau of Reclamation in southern Idaho to help firm up their power and supply additional power to preference customers in that area.

Mr. Kimball stated he did not have to make any studies to answer these questions:
(1) Idaho Power Co. will not wheel BPA power to Harney, nor
(2) Will they wheel to the Bureau of Reclamation in southern Idaho.

He stated the reason for his position was the result of the preference clauses in Federal Law. It would expose Idaho to loss of customers and of service territories.

Mr. Nelson of the Bureau of Reclamation pointed out that the Bureau would also benefit by firming up its level from 1934–35 to 1936–37 and asked if Idaho Power Co. would help accomplish this. Mr. Kimball stated he would defer answering that question but that they would certainly take it into consideration and would discuss it further with the Bureau.

Dr. Pearl then asked, supposing we cannot agree to a contract by May when the Brownlee reservoir starts filling, should we consider an interim agreement? Mr. Kimball stated that his company was not interested in an interim agreement unless it would conform to their long-term principles. On further questioning, he stated he would not oppose a 5-year review for taking into account changes in conditions. However, he would be opposed to a 5-year contract.

Mr. Morthland asked Mr. Kimball if the January 1957 draft his company submitted should be considered as a firm offer of a contract. Mr. Kimball said no, it just embodied principles. Mr. Morthland replied if it was to be considered a firm offer of a contract, we would have to reject the proposal. Mr. Morthland then went on and stated he felt the license eliminated any consideration of isolated operation but he recognized that coordination might possibly be achieved with utilities other than BPA. Then Mr. Morthland stated he would agree with some of the principles that Mr. Kimball outlined:

(1) That coordination would be based on the pool critical year.

(2) That Idaho should be entitled to generation on its own system.

(3) That BPA must reject any proposal for Idaho to participate in downstream benefits.

(4) That we cannot agree to consider summertime energy less valuable than wintertime energy but in our analysis we prefer to stay away from any value conception.

(5) We agree that summertime power necessary for the coordination should be on a firm basis.

Mr. McIntyre then presented some tables on the board, copies of which are attached.

Mr. Hogg disagreed with Mr. McIntyre's analysis. He stated that the way Idaho would operate isolated would result only in an increase in load-carrying capability of 70,000 kilowatts rather than the 246,000 kilowatts shown by Mr. McIntyre. The reason for this is that Brownlee could be operated in the summertime rather than storing water at that time. Mr. McIntyre agreed that if the comparisons were made from an isolated operation to a coordinated basis, this would be the result. However, assuming coordination is essential to fulfillment of the license stipulations, the comparisons would be as indicated.

Mr. Hogg further stated that the example given by Mr. McIntyre does not accomplish maximum load-carrying capability. To accomplish this, Idaho would have to be given much more summertime power in that they have a summer load of 1.16 times the winter load, while the average of BPA summer load is only about 95 percent of the winter load. The statement that maximum load-carrying capability is not accomplished because of the seasonal load variations on the Idaho system is not subscribed to by Mr. McIntyre.

Mr. Gale suggested that they study the figures and confer with Mr. McIntyre in regard to them and then contact the Administrator.

COORDINATION WITH IDAHO POWER CO., EQUAL ENERGY EXCHANGE BASIS

Idaho Power Co. under coordinated operation, 1936–37 streamflows; 1964–65 installation; millions of kilowatt-hours

	Storage refill season [1]	Storage release season [2]	Annual
System generation	2,300	4,290	6,590
Net interchange from BPA	652	−652	0
Firm load-carrying capability	2,952	3,638	6,590
Estimated loads [3]	2,240	2,650	4,890
Surplus:			
Millions of kilowatt-hours	712	988	1,700
Thousands of average kilowatts	194	194	194

[1] Apr. 16 through Sept. 15.
[2] Sept. 15 through Apr. 15.
[3] Own system load, does not include any recent sales or exchange contracts with other utilities.

Idaho Power Co. under coordinated operation 1934–35 streamflows—1964–65 installation—millions of kilowatt-hours

	Storage refill season [1]	Storage release season [2]	Annual
System generation	1,510	4,440	5,950
Net interchange from BPA	900	−260	[4] 640
Firm load-carrying capability	2,410	4,180	6,590
Estimated loads [3]	1,840	3,050	4,890
Surplus:			
Millions of kilowatt-hours	570	1,130	1,700
Thousands of average kilowatts	194	194	194

[1] May through August.
[2] September through April.
[3] Own system load, does not include any recent sales or exchange contracts with other utilities.
[4] Carryover interchange due BPA.

Annual kilowatt-hour comparisons:

1. Idaho gains, net after coordination and interchange—700 million firm kilowatt-hours
2. BPA gain, net after coordination and interchange—zero kilowatt-hour gross before interseasonal interchange for coordination—652 million firm kilowatt-hour winter energy

Increase in salable firm capability:

1. Idaho $\frac{900 \text{ million}}{730 \times 5} = 246{,}000$ average kilowatts [1]
2. BPA $\frac{652 \text{ million}}{730 \times 7} = 127{,}000$ average kilowatts [2]
   46,000 average kilowatts downstream
   173,000

[1] 5-month season.
[2] 7-month season.

CONFERENCE AND TELEPHONE CALL REPORT

JANUARY 21, 1958.

From: Hydraulic operations officer.
Copy to: Mr. Pearl.

The following data given over the telephone by Mr. Hogg of the Idaho Power Co. were presented for staff discussion in Dr. Pearl's office Thursday, January 16. These data show the benefits of coordination as computed by the Idaho Power Co. under 1936–37 streamflow conditions and for various levels of resource development, as follows:

System	Equal exchange	Idaho gain [1]	Bonneville Power Administration gain [2]
	Kilowatt-hours	*Kilowatts*	*Kilowatts*
Present system	52,000,000	25,000	10,000
Plus U. S. Bureau of Reclamation existing plants	−13,000,000	34,000	−2,500
Plus Brownlee	310,000,000	62,000	[3] 107,000
Plus Oxbow	439,000,000	71,000	[3] 132,000
Plus Hells Canyon	652,000,000	80,000	[3] 173,000

[1] Idaho gain is 1936–37 annual average increase above 1934–35 capabilities.
[2] Bonneville Power Administration gain is increase over 1936–37 storage release period.
[3] Includes downstream benefit of 46,000 kilovolt amperes.

Mr. Hogg pointed out the successive gains of both Idaho and BPA as being significant particularly the last two stages of development. Mr. Hogg also stated that the Idaho Power Co. believes there should be a differentiation between summer and winter power and that the company is not getting any capacity benefits, only energy. He asked if the Federal Government was getting some capacity benefit from the return of energy from Idaho. He was told that the same conditions apply on the Federal system as on Idaho's system where excess capacity is available on both systems. When informed that BPA's position remains the same as presented at the previous meeting, Mr. Hogg commented that it didn't appear BPA and Idaho could get together.

Dr. Pearl presented a new proposal given to him over the telephone by Mr. Kimball of Idaho Power Co. Mr. Kimball first stated that full coordinatoin of their plants could be accomplished with other utilities but coordination with BPA would be preferable. Mr. Kimball's proposal is as follows: (1) Idaho would purchase their power requirements during May, June, and July on BPA's proposed S–1 rate; (2) power requirements during April and August would be purchased from BPA at 2.5 mills when and if BPA had it available. If BPA did not have power available at this time, arrangements could be made with the Utah Power & Light Co.; (3) Idaho would let them have all the generation on their system for use or for sale to other utilities. The staff then discussed the preference position Idaho should assume for availability of BPA secondary ahead of or behind the industrial customers. No conclusion was reached. The staff was asked to prepare the requirements of the Idaho Power Co. and available surplus on the BPA system during the summer months for determination of the application of Idaho's proposal.

CONFERENCE AND TELEPHONE CALL REPORT

JANUARY 24, 1958.

From: Miller Evans.
Copies to: Dr. Pearl.

Meeting on January 24, 1958, with Idaho Power Co.

For Idaho Power Co.: John Kimball, R. E. Gale, Robert A. Hogg.

For BPA: Dr. Wm. A. Pearl, J. Lane Morthland, E. C. Starr, E. D. Ostrander, Leon Jourolmon (GRS), Miller Evans, H. H. McIntyre, C. E. Mohler.

The following discussions took place during the meeting with representatives of the Idaho Power Co. regarding the coordination of their system with that of the Administration:

Mr. Kimball reviewed the situation, pointing out that perhaps a statement of principles such as those involving downstream benefits, priority of filling reservoirs, and relative values of summertime and wintertime energy might be appropriate. He is primarily interested in buying summertime energy to hold and fill the new Idaho reservoirs.

Dr. Pearl went over briefly his telephone conversation with Mr. Kimball, as outlined on BPA form 15 dated January 20, 1958. This discussion primarily concerned some questions Mr. Kimball had raised, which will be brought out later in these minutes.

Mr. Kimball wished to add one point at this time, namely, that his company was not in a position to sign any agreement today but wanted information on points mentioned by Dr. Pearl as outlined in his form 15.

Dr. Pearl began with a discussion of the S–1 rate under which it is possible to sell secondary energy during May, June, and July, and as secondary energy it may be shut off at any time. He also indicated the difference between the sale and exchange of power and their associated priorities. He raised the question as to whether coordination meant the sale or exchange of power; it was generally agreed that coordination could probably be accomplished by either means.

Mr. Hogg pointed out that the S–1 type of energy was not in the class needed for filling reservoirs; he wanted this S–1 energy at the rate outlined in our schedule but not with the restrictions included therein.

Mr. Gale indicated that exchange of energy during May, June, and July, between the two utilities would be desirable on a multiplier basis at some ratio other than 1 for 1, but that energy for the remaining 9 months—August through April could be exchanged on a 1 for 1 basis.

Mr. Kimball asked if the Administration had any suggestions on how this could be accomplished. Mr. Morthland stated the staff feels that S–1 power would probably be available 19 out of 20 years, and that possibly Idaho could secure

assurance from other utilities for power which could be coupled with S–1 power, thus insuring delivery even in this hypothetical 20th year.

Mr. Kimball explained they had not made such an assumption but that it had definite possibilities.

Mr. Morthland brought out that the Administration does not take the position that coordination, in whole or in part, must necessarily be with BPA. He assumed that Idaho must present a plan to the FPC for coordiation, whether with this Administration or other utilities, which indicated the terms of Idaho's license as being met.

Mr. Evans read from the S–1 rate schedule, pointing out the terms and conditions of this rate with particular emphasis on its limitation of being secondary power and carrying a very low priority.

Mr. Morthland mentioned that we had not definitely decided to go ahead with this S–1 rate, but if we did it might be possible to make a contract on the assumption that the rate would be approved. The Administration had not planned on filing this schedule until 1959. However, if agreement is reached involving the S–1 rate, we would be willing to file it at any time.

Mr. Kimball informed the group that the first unit of Brownlee would be on the line soon after July 1, 1958.

Mr. Hogg felt a contract should provide for an exchange of energy from August 1 to May 1 on a 1-for-1 basis. To accomplish complete coordination it might be necessary to have this contract plus a second one for the purchase of S–1 energy by his company. He suggested the inclusion of this May, June and July energy in an exchange agreement at less than a 1-for-1 ratio.

Mr. Morthland had assumed that Idaho wanted to avoid an exchange in that they would like to retain all the benefits of their own generation.

Mr. Hogg referred to the original terminology; namely, that operating energy was that energy exchanged during the winter season or, as integrated energy, was that resulting from the drawdown of Brownlee Reservoir. There was some general discussion at this point on the overall exchange, relative values of summer and wintertime energy, and other points of a similar relation.

Mr. Kimball believes that all discussions up to now should, in effect, be forgotten and that we should look for a new means of coordination, even though Idaho would prefer to return to their original proposal. He wanted to talk at this time about an exchange of energy from August 1 to May 1 and the purchases of energy from May 1 to August 1 at the S–1 rate. Mr. Evans gave a copy of our S–1 schedule to the Idaho people with the admonition that we wanted them to fully understand the terms and conditions of this rate.

At this point Mr. Kimball requested that he be allowed some time for a meeting with his staff. This occurred in another room and took only a short interval of time.

Mr. Kimball, upon his return, said that he and his people felt there was great merit in the plan discussed for the exchange of energy from August 1 to May 1, and the purchase of energy from May 1 to August 1 at the S–1 rate. However, he wished to have his people closely examine the water cycle of the summertime months and would appreciate an opportunity to review Mr. McIntyre's study of this summertime energy. Idaho will need about one week to make this review and during this period would like the Administration to consider a 100 percent exchange agreement, including an exchange ratio higher than 1 to 1 for summertime energy, between the utilities in order to avoid the minimum bill exposure to Idaho in a wet year.

Dr. Pearl stated that Mr. Starr had tentatively proposed a 14 to 10 exchange on the summertime energy. Mr. Hogg again suggested the 25 to 10 ratio for this type of energy, which is the same as previously mentioned by him.

Mr. Kimball mentioned that perhaps it would be possible to have a combination exchange and purchase of the summertime energy. He and his people would like the opportunity to make an extensive study of the S–1 rate for the May, June, and July energy, with an even exchange of energy for the balance of the year.

Mr. Evans told the group there appeared to be general agreement on the even exchange of energy during the 9-month interval from August 1 to May 1; therefore, both Idaho and BPA should be able to concentrate on a solution to the summertime energy problem.

The meeting terminated at this point, with the Idaho men leaving with Mr. McIntyre to examine the Administration's water cycle studies previously mentioned. After the review has been completed by the Idaho Power Co., which Mr. Kimball indicated previously would take approximately one week, he will call Dr. Pearl and arrange the next meeting.

CONFERENCE AND TELEPHONE CALL REPORT

FEBRUARY 13, 1958.

To: Office of the Administrator.
From: Bernard Goldhammer.

Meeting with Idaho Power Co. on February 10, 1958:
Present: For Idaho Power Co.: John Kimball, Ralph Gale.
For BPA: Dr. Pearl, J. Lane Morthland, E. C. Starr, E. D. Ostrander, Miller Evans, B. Goldhammer, L. Jourolmon.
Part of time: H. McIntyre, C. E. Mohler.

Idaho Power Co. suggested for the time being to use figures for 2 dams instead of 3 dams in our discussion. However, they stated that they intended to go ahead and construct the three dams. As a result of the demands for power in the west group area, they stated that they may start construction of the third dam earlier than anticipated. However, most of their present studies have been made on the basis of the two dams.

Dr. Pearl stated there were 3 proposals that it appeared BPA could accept for coordination of the 2 systems. They are:

(1) A 1-for-1 exchange. For each kilowatt-hour BPA provided Idaho during the summer months, Idaho would provide 1 kilowatt-hour to BPA during the winter months.

(2) A 1-for-1 exchange August through April and a direct sale of power during May, June, and July at 2½ mills per kilowatt-hour. This sale of summer power would not be on a firm basis and Idaho would be low man on the totem pole.

(3) A 1-for-1 exchange August through April and Idaho would purchase the power they need from any available source in May, June, and July.

The additional power Idaho would need to bring 1934–35 conditions up to 1936–37 under the first proposal would be guaranteed by BPA, but such additional sales would be settled in the exchange account rather than a 1-for-1 exchange.

Idaho Power Co. raised objections to these proposals on the basis that they felt that too large a proportion of the coordination benefits went to the Federal system.

Idaho Power Co. then presented us with their analysis of the cost of coordination. They stated that on an isolated basis they could generate an annual average of 658 megawatts. Their firm capability would be 520 and their secondary, 138 megawatts. On the basis of a 1-for-1 exchange with BPA, they would generate an annual average of 669 megawatts and their firm capability would be 590 megawatts. The increased firm would be an annual average of 70 megawatts. Idaho estimated that the 70 megawatts would cost them an average of 3.4 mills per kilowatt-hour.

Idaho estimated that with coordination with Utah, whereby they would purchase the lowest cost steam-generated power available at a rate of incremental costs plus one-fourth mill per kilowatt-hour, Idaho would have an annual average generation of 699 megawatts, a firm of 655 megawatts. The resulting increase in firm over isolated operation would be 135 megawatts at an estimated incremental cost of 3.34 mills per kilowatt-hour for this additional firm. Mr. Kimball and Mr. Gale did not have the backup data on their cost figures, so Mr. McIntyre will call Mr. Hogg to get this information.

Mr. Kimball stated that Utah could not provide all the energy that was necessary for complete coordination so Idaho would have to draw down their reservoirs when Utah could not carry the load. Mr. Kimball stated that in his opinion Idaho should receive, in any arrangements with BPA, 135 megawatts of additional prime instead of the 70 resulting from a 1-for-1 exchange. He based his suggestion of 135 megawatts on the amount they estimate they could get on coordination with Utah Power & Light.

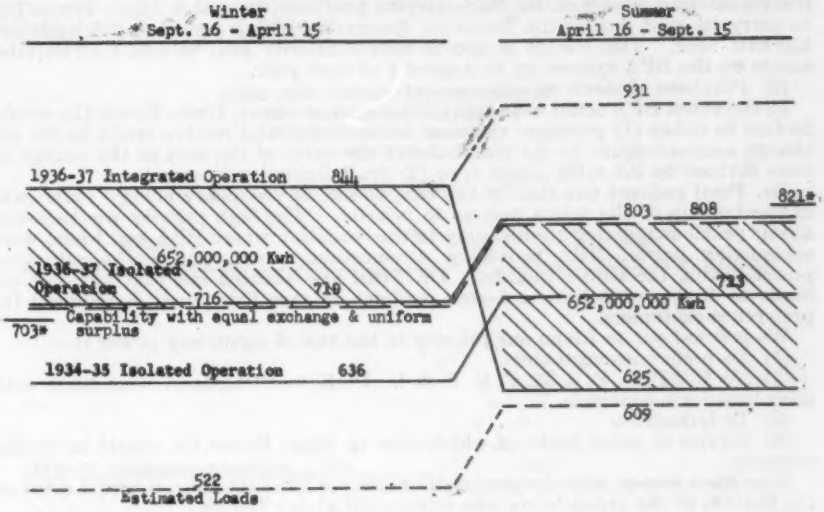
Dr. Pearl mentioned that we were studying another proposal which might provide a lower rate or higher exchange ratio for the water that is necessary to fill the Brownlee Reservoir during the summer months but that our studies on this were not as yet completed.

In the discussion, Mr. Morthland asked Mr. Kimball if Idaho would operate coordinated with the Northwest power pool regardless of how they would secure the necessary power to keep the reservoir full. Mr. Kimball said that they would have to look at it in that in some years Utah cannot provide enough steam to keep the reservoir full. Mr. Kimball stated that on the basis of present conditions Idaho could get 125 megawatts in the summer from Utah.

Mr. Kimball stated he would call Dr. Pearl next week relative to another meeting.

IDAHO POWER COMPANY-BPA COORDINATION
Idaho Power Company Capability
1964-65 Loads and Resources
Megawatts

(Brownlee, Oxbow & Hells Canyon)



* Equal exchange capability if surplus is placed on load shape.

CONFERENCE AND TELEPHONE CALL REPORT

FEBRUARY 21, 1958.

To: Office of the Administrator.
From: Bernard Goldhammer.

Meeting on February 19, 1958, with Idaho Power Co.

Present:

For Idaho Power Co.: John Kimball, Ralph Gale, Richard Moore, Robt. Hogg.

For BPA: Dr. Pearl, J. Lane Morthland, Harvey Sutter, Miller Evans, E. D Ostrander, E. C. Starr, Raymond Coulter, L. Jourolmon, B. Goldhammer.

The Idaho Power Co. presented a statement as to:

(1) Handling of power August 1 through April 30.

(2) Summertime energy.

(3) Purchase of steam or other energy in case of insufficient summertime energy that Idaho would require.

Statements read as follows:

(1) Energy exchange during period August 1 through April 30:

During the period August 1 through April 30, operating energy will be exchanged between the BPA and Idaho Power Co. systems on a 1-for-1 basis. BPA will furnish to Idaho Power Co. sufficient energy to carry its load corresponding to its firm load-carrying capability as determined during the critical period of the Northwest power pool area (which is presently September 15 through April 15, 1936-37). When generation capability on the Idaho Power Co. system exceeds its load-carrying requirement, energy will be supplied to BPA system and storage releases shall be regulated so as to produce the maximum firm power and usable energy for the Northwest power pool area. Each year at the end of the period (August through April), Idaho Power Co. will pay BPA 2.5 mills per kilowatt-hour for all kilowatt-hours received from BPA in excess of the number of kilowatt-hours furnished to BPA during the period. In the event Idaho Power Co. has furnished BPA an excess of energy during any period, the excess energy may be carried forward to the next year.

(2) Summer energy for filling and holding Brownlee Reservoir:

During May, June, and July, BPA will furnish Idaho Power Co. energy for load-carrying purposes, during the Brownlee Reservoir refill period, in the amount of 320 million kilowatt-hours at 1 mill per kilowatt-hour. This energy is to have a priority next to firm load requirements on the BPA system. BPA will also furnish additional energy, for load-carrying purposes, to enable Idaho Power Co. to carry its load during the Brownlee Reservoir holding period at 2.5 mills per kilowatt-hour. This energy is also to have a priority next to firm load requirements on the BPA system up to August 1 of each year.

(3) Purchase of steam or other energy:

In the event BPA could not supply the energy required, Idaho Power Co. would be free to either (1) purchase steam or other energy and receive credit in the exchange account equal to the remainder of the ratio of the cost of the energy in mills divided by 2.5 mills minus 1, or (2) draft Brownlee Reservoir.

Dr. Pearl pointed out that in the case of sale of secondary energy Idaho was at the bottom of the totem pole as to priority. The high priority we discussed at our previous meeting applied only to the condition where BPA and Idaho were exchanging power, BPA providing summertime power, and Idaho returning power during the winter months. Dr. Pearl also pointed out that any sale we make to Idaho must have a 5-year pullback in case this power is required for preference customers.

We pointed out to Idaho our priority in the sale of secondary power is—

(1) To preference customers.

(2) To WWP, P. P. & L., P. S. P. & L., PGE, and Calpac in accordance with their long-term contracts.

(3) To industries.

(4) Service to other loads, of which sales to Idaho Power Co. would be in this category.

If we file a rate at a low level, such as 1 mill per kilowatt-hour, it would come at the bottom of the group below any power sold at our H rate.

We discussed the question of the amount of power necessary to fill the reservoir, Idaho Power Co. suggesting that it would be a fixed amount each year, and BPA suggesting that it be examined at the end of each period to determine how much power was necessary for reservoir filling.

We discussed the requirements on a two-dam plan with 1962–63 loads, assuming 1936–37 water conditions and regulated for uniform surplus on the Idaho system. On a sale, we would sell to Idaho 552 million kilowatt-hours in the summer months and they would exchange with us 120 million kilowatt-hours from April through August. In addition to the 46 megawatts of downstream benefit, BPA would get 24 megawatts of additional load-carrying capability. The uniform surplus to Idaho would be 125 megawatts.

We also discussed an exchange whereby reservoir filling power would be exchanged 2½:1, load-carrying summertime power would be exchanged 1:1, and August through April would be on a 1:1 exchange. BPA would provide 313 million kilowatt-hours to fill the reservoir on a 2½:1 basis. We would also supply in a critical year 128 million kilowatt-hours to carry the load on a 1:1 exchange basis, and in the period April through September we would supply 77 million kilowatt-hours to carry the load on a 1:1 basis. In addition to the 46 megawatts downstream, BPA would increase its load-carrying capability by 65 megawatts. Surplus on the Idaho system would be 83 megawatts.

On a straight 1-for-1 exchange, with the 2 dams, BPA would provide Idaho 441 million kilowatt-hours. Bonneville would gain 87 megawatts in load-carrying capability in addition to the 46 downstream. Idaho's surplus would be 62 megawatts.

Idaho suggested that the other utilities be brought into the discussions relative to the coordination. They stated they would buy their summertime energy from the cheapest source, and Mr. Gale felt that 75 to 80 percent of the years they could buy summer secondary from other utilities at less than 2½ mills per kilowatt-hour.

Idaho Power Co. suggested they make some studies and meet with us again in about 10 days. The studies they will make are as follows:

(1) Purchase reservoir filling energy at 1 mill per kilowatt-hour during May, June, and July. Purchase load-carrying power for May, June, and July at 2½ mills per kilowatt-hour. Supply any deficiency in July by BPA paying excess steam costs and a 1-for-1 exchange August 1 through April 30.

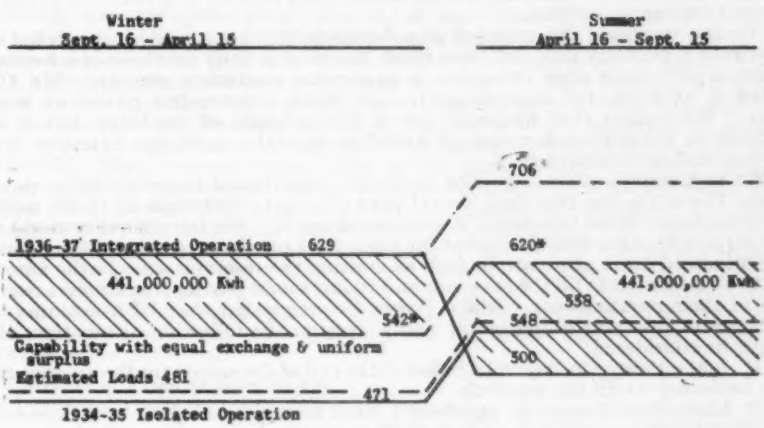
(2) The same as above except August 1 to September 15 Idaho would buy power from BPA at 2½ mills per kilowatt-hour and BPA would either pay excess costs of other power or permit drafting their Brownlee reservoir in case the secondary was not available. The period September 15 to April 30 would be 1-for-1.

(3) Exchange summertime power on the basis of 2½ for 1 for reservoir filling energy and 1 for 1 for load-carrying energy. Exchange power from August 1 through April 30 on a 1-for-1 basis.

(4) They may also study other combinations.

IDAHO POWER COMPANY-BPA COORDINATION
Idaho Power Company Capability
1962-63 Loads and Resources
Megawatts

(Brownlee & Oxbow)



* Average capability on an isolated basis with 1936-37 streamflows would be the same.

CONFERENCE AND TELEPHONE CALL REPORT

MARCH 7, 1958.

To: Office of the Administrator.
From: Bernard Goldhammer.

Meeting with Idaho Power Co. on March 5, 1958:
Present:
For Idaho Power Co.: Ralph Gale, John Kimball.
For BPA: Dr. Pearl, J. Lane Morthland, E. D. Ostrander, Miller Evans, E. C. Star, Harvey Sutter, Raymond Coulter, L. Jourolmon, B. Goldhammer.

Mr. Kimball stated that of the four methods discussed at our previous meeting, Idaho Power Co. has not yet concluded which they would prefer. The four methods relate to the question of buying and exchanging reservoir filling power and load-carrying power during the months of May, June, and July. Mr. Kimball stated that probably their preference would be to purchase, since by that route they would have the highest load-carrying capability.

We discussed the question of term of agreement and there was some concurrence by both parties that about a 10-year agreement would be adequate. Conditions would change and within 10 years a new contract could be made.

We discussed the question of reservoir filling power until Oxbow comes on the line in October 1961. With only Brownlee about 222 million kilowatt-hours would be necessary for reservoir filling. Mr. Gale stated that this amount probably would be needed each year in that their license requires that the reservoir be down to 500 million acre-feet for flood-control purposes by March 1. Therefore, from a practical standpoint, the reservoir should be drawn down each year.

Mr. Kimball asked in case Idaho purchased reservoir filling power and exchange to carry their load during May, June, and July, what their priority would be. The BPA staff stated the priority would be the same as exists under their present exchange contract. In the exchange agreement, Idaho comes after preference customers, private utilities who signed a 20-year contract, and existing industrial interruptible loads. Idaho would have priority over any sales outside the region and any expansion of interruptible industrial loads beyond that stated in exhibit B of their exchange contract.

We also discussed the question of a 5-year pullback on a sale but pointed out that such a pullback does not have much meaning in their purchase of secondary. Idaho would come after deliveries to preference customers anyway. Mr. Gale asked if we could tell approximately how much summertime power we would have. We replied that we could give a fair estimate of the loads, but it was difficult to predict what resources would be available until the February snow surveys had been analyzed.

We had considerable discussion as to the meaning of reservoir filling power. Idaho Power Co. felt that they should have the right to schedule up to 320 million kilowatt-hours (with two dams) if they could use it. We felt that they could not sell surplus to other utilities and at the same time purchase reservoir filling power. We discussed other alternatives such as limiting the reservoir sales to the amount that could be used to fill the reservoir and Idaho would pay for this amount regardless of their requirements. Idaho Power Co. requested that BPA examine this question of reservoir filling power and suggested the following alternatives that might be considered:

(1) Idaho Power Co. would be billed at the end of the season for the amount that was necessary to fill the reservoir.

(2) Idaho would agree to purchase a fixed amount each year and Bonneville would sell that amount if it were available.

(3) Idaho would be permitted to purchase up to the equivalent of a million acre-feet through the plants that they own downstream. In the case of Brownlee alone, it would be 222 million kilowatt-hours. In the case of Brownlee and Oxbow, it would be about 320 million kilowatt-hours; and in the case of the three dams, it would be over 400 million kilowatt-hours.

Our discussion relative to the period August 1 through April 30 centered around the question of the load-carrying capability of the Idaho plants. On the basis of a 1-for-1 exchange of the needs between August 1 and April 30, the load-carrying capability of the Idaho plants would be 24 megawatts less than on the basis of September 15 through April 15. BPA pointed out that there was a considerable risk to purchasing secondary power in this period in that it would not be available in many years. In contrast, during the summer months the risk for the next 10 years appeared to be very small. In order to effectuate a guaranteed amount of power to maintain the reservoir during this period, a firm exchange rather than a sale would be necessary.

Idaho Power Co. suggested that the exchange account which would normally be in BPA's favor be settled out at some figure of $500,000 or less so their books would not show a large current debt to BPA. BPA replied that this could be easily handled and that a $500,000 balance would probably be too large a figure. The exchange account would build up when water conditions were below that of 1936–37. BPA's rough estimate indicates that on the basis of 1934–35 conditions, Idaho Power Co. would owe Bonneville approximately a million dollars in that year for power purchased. However, in that year BPA would have the secondary available so that the load-carrying capability up to the pool level could be guaranteed.

Idaho Power Co. submitted three statements relative to a proposed coordination agreement. BPA agreed to further consider their statements. We expect to give Idaho Power Co. some more definite information as to what BPA might regard as the terms of an agreement after discussions within the Department in Washington next week.

It was suggested that due to the pressures for the staff during the next 2 weeks, our next meeting be held the week of March 24.

The statements that Idaho Power Co. presented are as follows:

1. Summer energy for filling and holding Brownlee Reservoir and Oxbow

During May, June, and July, BPA will furnish Idaho Power Co. energy for load-carrying purposes, during the Brownlee Reservoir refill period, up to 320 million kilowatt-hours, as scheduled by Idaho Power Co., at 1 mill per kilowatt-hour. This energy is to be supplied subject to the "5-year drawback provisions" and have a priority next to present "industrial interruptible contract" load requirements on the BPA system. BPA will furnish additional energy also for load-carrying purposes, to enable Idaho Power Co. to carry its load corresponding to its firm load-carrying capability during the Brownlee Reservoir holding period (May, June, and July) at 2.5 mills per kilowatt-hour and subject to the same withdrawal and priority limitations as the above reservoir filling energy.

2. *Energy exchange during period August 1 through April 30*

During the period August 1 through April 30, operating energy will be exchanged between the BPA and Idaho Power Co. systems on a 1-for-1 basis. BPA will furnish to Idaho Power Co. sufficient energy to carry its load corresponding to its firm load-carrying capability as determined during the critical period of the Northwest Power Pool area (which at the present time is generally considered to be a period approximately September 15 through April 15 during the years 1936–37). When generation capability on the Idaho Power Co. system exceeds its load-carrying requirement, energy will be supplied to BPA system and storage releases shall be regulated so as to produce the maximum firm power and usable energy first for firm load and commitments of Idaho Power Co. and second for the Northwest Power Pool area. Each year at the end of the period (August through April), Idaho Power Co. will pay BPA 2.5 mills per kilowatt-hour for all kilowatt-hours received from BPA in excess of the number of kilowatt-hours furnished to BPA during the period. In the event Idaho Power Co. has furnished BPA an excess of energy during any period, the excess energy may be carried forward to the next year.

3. *Purchase of steam or other energy*

In the event BPA could not supply the energy required, Idaho Power Co. would be free to either (1) purchase steam or other energy and receive credit in the exchange account equal to the remainder of the ratio of the cost of the energy in mills divided by 2.5 mills minus 1, or (2) draft Brownlee Reservoir.

LETTER OF ADMINISTRATOR WILLIAM A. PEARL, OF BONNEVILLE POWER ADMINISTRATION, TO IDAHO POWER CO., DATED APRIL 1, 1958

APRIL 1, 1958.

Mr. JOHN T. KIMBALL,
Vice President and General Manager, Idaho Power Co.,
Boise, Idaho.

DEAR MR. KIMBALL: At our last meeting on March 5, 1958, we informed you that we would discuss within the Department of the Interior, during our trip to Washington, D. C., the coordination of Idaho Power Co.'s system with the Columbia River power system.

While in Washington, we discussed the various means of coordination that we have previously discussed with you. Two alternatives were considered acceptable to the Department of the Interior; those are:

(1) Equal exchange of energy with BPA so that your summertime needs as described below for reservoir filling and load carrying would be assured, or

(2) Equal exchange of energy with BPA from August 1 through April 30 and purchase by your company during May, June, and July of energy you need for reservoir filling and to carry your load. If such purchases are made from BPA, these would be at our existing H rate (2½ mills per kilowatt-hour).

Over the past couple of months, we have discussed with you a possible new rate for reservoir filling. We are not prepared to file such a rate at the present time. Our studies, however, will continue and if such a rate is filed and approved in the future, it will be available to any utility meeting the requirements ultimately established in the rate.

The foregoing alternatives are based on the subsequently described determination of the company's loads and resources for the year in which streamflow conditions would be critical for the Columbia River power system.

Alternative 1 (equal exchange of energy on annual basis)

The company would be assured as a firm entitlement of annual kilowatt-hours, equal to its energy resources for the critical streamflow year for the Columbia River power system. The firm entitlement would be distributed by months so as to provide the company in the early years of the contract a surplus over its own loads which would be the same in average kilowatts in all months, or in accordance with a mutually acceptable shaped surplus. The firm entitlement would therefore be established by an exchange of energy on a 1-for-1 ratio in the critical year.

Alternative 2 (May, June, July purchase and equal exchange of energy August 1 through April 30)

The company would be assured a firm entitlement of kilowatt-hours, over the season August 1 through April 30 equal to its energy

resources for the same period during the critical streamflow year for the Columbia River power system. The firm entitlement would be distributed by months so as to provide the company, in the early years of the contract, a surplus over its own loads which would be the same in average kilowatts in all months of the season, or in accordance with a mutually acceptable shaped surplus. Over the period May 1 through July 31 the company would have the privilege of purchasing from BPA, when available, any energy necessary to bring its energy resources up to the firm entitlement. Over the remainder of the critical streamflow year, therefore, energy would be exchanged between BPA and the company on a 1-for-1 ratio.

Under either alternative, BPA would provide the company with sufficient energy to bring its energy resource up to its firm entitlement at any time when the company's energy resource is below that level. The company would be obligated to return all such energy to BPA on a 1-for-1 ratio from its first energy resource in excess of firm entitlement. Energy received during the season May 1 through July 31 under alternative 2 would be purchased by the company rather than returned. If, over any year ending June 30, the company has generated insufficient energy above its firm entitlement to return the energy provided by BPA under the agreement, except for summer energy purchased under alternative 2, then the company shall settle its obligation to return such energy by paying BPA for such energy at the BPA H rate.

In addition to energy exchanges to maintain the company's firm entitlement, the company and BPA would exchange energy, to the extent permitted by the loads and resources of each, for the purpose of increasing the usability of the secondary energy resources of each. This additional exchange would be recorded in the same account as energy exchanged for maintenance of the firm entitlement. The account would be settled as of June 30 each year by payment by the company if the balance is in favor of BPA or by carryover if the balance is in favor of the company.

Each year prior to April 1, BPA and the company would establish rules for coordinated operation of Brownlee Reservoir through the subsequent storage refill and release seasons. These rules would be made subject to any requirements imposed by the FPC license for Brownlee Reservoir.

Initially and thereafter, prior to April 1 of each year, the company would compute and submit to BPA a summary of its forecasted monthly energy loads and resources for the year of critical streamflow conditions for the Columbia River power system. The resources in this summary would be exclusive of capability of the Brownlee plant and all other plants of the company downstream, and the loads would be exclusive of the requirements of any other utility which the company may be obligated to supply. Upon receipt of this summary, BPA would submit to the company monthly energy capability under critical streamflow conditions of the company's plants at Brownlee and downstream therefrom under operation in coordination with the Columbia River power system. These loads and resources would then be tabulated to determine the company's firm entitlement for the following operating year of July 1 through June 30.

We will be very happy to discuss with you either of these alternatives and contract terms at your convenience.

Sincerely yours,

WM. A. PEARL, *Administrator.*

STUDY OF BENEFITS OF INTEGRATION BY BONNEVILLE POWER ADMINISTRATION AND BUREAU OF RECLAMATION

OFFICE MEMORANDUM

UNITED STATES GOVERNMENT,
BONNEVILLE POWER ADMINISTRATION,
January 23, 1958.

To: Director, Division of Operations and Maintenance.
From: Hydraulic Operations Officer.
Subject: Integration with the Bureau of Reclamation Power System in Idaho.

Pursuant to our discussions with the Administrator on December 6 we met with Mr. Curtis Brown of the region 1 office of the Bureau of Reclamation on December 10, 1957, to exchange information pertinent to the integration of our two respective power systems. From the data furnished by Mr. Brown then and subsequently, we have reached the tentative conclusion that the integration would permit the Bureau to sell an additional 13,000 kilowatts of firm energy.

Because of the relative sizes of the two systems integration is defined by examination of first the Bureau's system, which is the smaller. This determines the need for power exchanges the availability of which can be verified by examination of our system. This process is shown in part on table 1 attached. The firm load which is shown represents requirements for pumping power on the Bureau projects plus contractual commitments to existing customers. Additional secondary loads, represented by contracts with the two private utilities in Idaho, were also studied but were assumed on table 1 not to interfere with firm integration benefits. The 1936–37 Bureau generation is the average capability under 1936–37 streamflows of the Boise, Minidoka, and Palisades projects. This capability compared with the total load results in average surplus of 20,000 kilowatts for the year and 13,000 kilowatts for the season September 16 through April 15, which is our critical storage release season.

The 13,000-kilowatt surplus is not presently salable as firm power for three reasons: (1) Some other years, particularly 1934–35, have a lesser surplus; (2) the surplus is poorly distributed through the year, being too large in some months and too small in others; (3) tne energy surplus is accompanied by a severe peak deficiency. In fact under critical local streamflows, the Bureau must purchase peaking power to meet their present commitments.

Integration with the Bonneville Power Administration would remove all three deterrents to the sale of the surplus. Availability of our secondary energy will firm up the supply in years of lesser surplus than 1936–37, such as 1934–35. Our storage is available to reshape the monthly surplus to load, and we will have a peak surplus to meet the Bureau's deficiency in peaking. This reshaping is shown by the last column on table 1 where in the last half of September (1936–37) a

maximum of 26,000 average kilowatts flow from the Bureau to BPA. The net interchange for the storage release season however is zero, as shown. Excess of generation over firm resource in the storage refill season is not shown as interchange under the assumption that this excess will supply the existing secondary load of the Bureau. The possibility remains to be explored of increasing these secondary sales through integration of the two systems.

The other two functions of integration are not shown on table 1 but they have been studied. The maximum monthly interchange of average energy from BPA to the Bureau was found to be 41,000 kilowatts in September of 1934. This is an amount which we could easily supply from our seasonal resources. The maximum interchange of peaking power from BPA to the Bureau for firm load was found to be about 84,000 kilowatts in August 1931 and August 1933. It also is an amount which we could easily supply. This energy component of the peak exchange will be liquidated within the month. This exchange is on the assumption that Palisades powerplant will not be permitted to operate at less than 70 percent plant factor. Operation was also studied at 50 percent plant factor and also with unlimited peaking. Consideration of the fishery resource will influence the actual selection of a plant factor.

In summary, benefits to the Federal Government from integration of the two systems would be as follows:

1. The Bureau could supply an additional 13,000 kilowatts of firm energy load.
2. Increased sales by BPA could be made from the existing secondary energy supply to the Bureau during years other than 1936–37.
3. A liability which has been incurred by the Bureau for purchase of peaking power in critical hydro periods would be removed.
4. Certain energy resources of the Bureau which are presently unusable in load would be made salable through reshaping the surplus and providing peak as required.

HENDERSON M. MCINTYRE,
Hydraulic Operations Officer.

TABLE 1.—*Integration with Bureau of Reclamation*

[Bureau of Reclamation loads and resources: 1936-37 streamflows—megawatts]

Month	Firm load	Average generation	Surplus	Shaped surplus	Firm resources	Interchange from BPA
July	115	156	41	35	150	[1] 0
August	115	156	41	35	150	[1] 0
Sept. 1–15	93	147	54	28	121	[1] 0
16–30	93	147	54	28	121	−26
October	50	61	11	15	65	4
November	34	42	8	11	45	3
December	36	44	8	11	47	3
January	34	45	11	11	45	0
February	36	44	8	11	47	3
March	36	44	8	11	47	3
Apr. 1–15	44	61	17	13	57	−4
16–30	44	61	17	13	57	[1] 0
May	92	156	64	28	120	[1] 0
June	107	150	43	32	139	[1] 0
Annual average	66	92	26	20	86	0
Storage release						
Season average	42	55	13	13	55	0

[1] Excess of generation not shown as interchange as it will supply existing secondary loads of the Bureau.

EXHIBIT I

CORRESPONDENCE BETWEEN SENATOR FRANK CHURCH AND BONNEVILLE POWER ADMINISTRATION IN REGARD TO COORDINATION AGREEMENT

UNITED STATES SENATE,
September 18, 1957.

Dr. WILLIAM A. PEARL,
Administrator, Bonneville Power Administration,
Portland, Oreg.

DEAR DR. PEARL: There has come to my attention the fact that the Bonneville Power Administration is negotiating with the Idaho Power Co. for interchange and exchange of power at the time the Brownlee Dam goes into production.

I would appreciate being advised of the status of the negotiations and the proposals of each of the parties presently being considered by the other party. I would also appreciate being advised as to the review procedures that exist with reference to this type of negotiation—that is, does the Interior Department have any responsibility for the carrying on of negotiations or for approval of the proposals agreed to by the Bonneville Power Administration and the Idaho Power Co.?

I understand that the Bonneville Power Administration sells power to the Idaho Power Co. at the present time. I would like to have the general summary of the terms and conditions of this marketing and an analysis of the power furnished by season or month for at least the last 3 years by both parties. If you have the information, I would like to know how much seasonal surplus capacity exists in southern Idaho in the Idaho Power system at the present time, and how much surplus power is available for importation into Idaho from the Federal Columbia River power system?

Sincerely,

FRANK CHURCH,
United States Senator.

DEPARTMENT OF THE INTERIOR,
BONNEVILLE POWER ADMINISTRATION,
Portland, Oreg., October 4, 1957.

Hon. FRANK CHURCH,
United States Senate,
Washington, D. C.

DEAR SENATOR CHURCH: In reply to your letter of September 18, I will attempt to summarize for you the status of our thinking with respect to integration between the Government's system and the system of the Idaho Power Co. and to provide the specific information you requested.

The Federal Power Commission license under which the Idaho Power Co. is constructing the Brownlee and adjacent projects, establishes a requirement for coordination with the Northwest Power Pool. As a practical matter, this, of course, means coordination with the Government's system. Such coordination is highly desirable to preserve the integrated pattern of power pooling—which has been of such considerable advantages to the Pacific Northwest—as these new plants are added.

The Bonneville Power Administration fully appreciates not only the license requirement but the advantages which would accrue from a coordination agreement. Further, I believe it is agreed that the final coordinated plan of operation should be such as to produce for the region the maximum effective utilization of the resources available. However, new and unusual issues are presented in the development of this coordination plan. These issues are requiring serious and lengthy consideration. While we have now in effect a number of contracts for general integration between systems, which have been worked out over many years in the past, we have as yet, encountered no situation which would establish a precise precedent for this case. For this reason, discussions are still very much in the preliminary exploratory stages, and I have not yet arrived at a decision

as to the type or types of arrangement which, in my opinion, would be acceptable to the Government. Obviously such a decision must precede a determination as to the exact terms and conditions of the arrangement. Both the general type of arrangement and the terms and conditions thereof will be affirmed as to legality by my counsel before the proposal stage is reached. For these reasons, at this point it appears that it will be some time before we are able to reach a sufficient stage of definiteness in our thinking to warrant a review.

It has been my plan to thoroughly discuss all proposed arrangements of importance with our customers, customer associations, and other interested groups (such as those represented by the membership of the Administration's Regional Advisory Council), prior to making a final decision. Integration with the Idaho Power Co.'s new plants is a matter of regional importance, and this review procedure will be followed. In fact, a status report on this matter has already been placed on the agenda for our forthcoming customer and Advisory Council meetings (scheduled for November). The Bureau of Reclamation, the Federal Power Commission, and the Corps of Engineers are being consulted. On matters of importance such as this, we work with the Secretariat and Solicitor's office of the Department. Legal analyses are currently underway.

I have given a similar status report to Senator Morse, who also inquired on this matter.

The Bonneville Power Administration exchanges power with the Idaho Power Co. under an exchange agreement executed March 4, 1955. This contract expires August 31, 1974. Either party, however, may cancel it upon 3 years' notice, but not prior to August 31, 1960.

This contract is the usual exchange arrangement between Bonneville and a distributor. It provides for mutual exchange of hydro energy. It also provides, in case of an emergency, for delivery to the Government of steam-generated energy which Idaho might be able to procure. In addition to the usual exchange arrangements, the contract includes a provision for delivery by the Government of up to 100 million kilowatt-hours of provisional power which may be delivered from the time the Government system goes on control until September 30 of each year. This provisional power must be returned if the Administration finds such to be necessary to carry any other loads in its normal service area, including interruptible industrial loads.

All accounts are settled at the H rate of 2½ mills per kilowatt-hour.

Deliveries started in May 1955. These deliveries, by months, are shown in the attached table. Bonneville has delivered a net of over 211 million kilowatt-hours to the Idaho Power Co., which represents revenue to the Government of over $500,000.

The attached table also shows the amount of secondary energy which is presently unallocated on the Federal system for the period July 1957 through June 1958, and which may be assumed to be available for Idaho. You will note that the amounts are considerably larger under median month hydrologic conditions than they are under minimum conditions.

Our information indicates that the Idaho Power Co. will face a power deficiency on its system, rather than a surplus, during the 1957–58 year. This deficiency may be met by the company either by purchases from other members of the eastern group of the pool, or by utilization of our surplus, to the extent we can supply it.

During October we will be in Washington, D. C., to present our 1959 budget request to the Bureau of the Budget, and I would appreciate the opportunity at that time of discussing with you the methods we have been studying to accomplish the requirements of the Idaho Power Co.'s license and also obtain the maximum generation from the projects in the Northwest.

Sincerely yours,

WM. A. PEARL, *Administrator.*

Energy deliveries—Idaho Power Co. exchange agreement

[Kilowatt-hours]

Month	BPA to Idaho	Idaho to BPA	Month	BPA to Idaho	Idaho to BPA
1955			*1956—Continued*		
May	2,160,000		August	31,245,000	
June	5,635,200		September	16,890,000	
July	5,978,400		October	0	
August	6,189,600		November	0	
September	6,724,800		December	0	
October	784,800		*1957*		
November	0		January	0	
December	1,257,600		February	0	
1956			March	0	
January	0		April	0	
February	0		May	689,000	
March	175,200		June	21,260,000	8,000
April	235,200	113,000	July	52,498,000	
May	3,694,200		August	22,614,000	
June	8,301,000				
July	24,911,000		Total	211,243,000	121,000

Seasonal surplus power—Federal system

[Kilowatt-hours]

1957–58	Minimum year	Median month year	1957–58	Minimum year	Median month year
July	466,488,000	548,328,000	January		11,160,000
August		84,816,000	February		49,848,000
September			March		81,096,000
October			April		247,752,000
November			May	348,936,000	668,112,000
December			June	931,488,000	692,664,000

EXHIBIT II

Order of Federal Power Commission Licensing Idaho Power Co. To Build Snake River Dams

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United States of America, Federal Power Commission

Before Jerome K. Kuykendall, Chairman; Claude L. Draper, Commissioners: Seaborn L. Digby, Frederick Stueck, and William R. Connole.

In the Matters of Idaho Power Company, Projects Nos. 1971, 2132, and 2133

ORDER ISSUING LICENSE (MAJOR)

Application was filed December 15, 1950, by Idaho Power Company, of Boise, Idaho, for a license under the Federal Power Act for a proposed hydroelectric development, known as Oxbow, and designated as Project No. 1971, to be located on Snake River in Idaho and Oregon, and on May 15, 1953, the Company filed applications for licenses for two additional proposed hydroelectric developments on Snake River, known as low Hells Canyon and Brownlee, and designated Projects Nos. 2132 and 2133, respectively. The proposed developments would be located in Adams and Washington Counties, Idaho, and in Wallowa, Baker, and Malheur Counties, Oregon. The applications were supplemented by later filings.

Public hearings were held on the Oxbox application (No. 1971) during July 1952, in Baker, Oregon, and Boise, Idaho, respectively, at which all persons desiring to speak either in favor of or against the issuance of a license were heard. After the filing of the applications for low Hells Canyon (No. 2132) and Brownlee (No. 2133), the proceedings upon the three applications were consolidated for purposes of public hearing. A further public hearing was held in Washington, D. C., commencing on July 7, 1953, in which hearing all parties, including the Applicant, the staff of the Commission, as well as the National Hells Canyon Association, Inc., Lewis County Public Utility District of Washington, et al., National Rural Electric Cooperative Association, the State of Washington and other parties participated, and presented testimony and documentary exhibits. After the close of the hearing, briefs were filed by the various parties and by the staff and an initial decision was rendered by the Presiding Examiner containing findings and conclusions. On July 6, 1955, the Commission heard oral argument on the exceptions to the Examiner's decision.

For the reasons set forth in Opinion No. 283 adopted this date and made a part hereof by reference, and upon consideration of the entire record in these matters, including the reports of the Federal and State agencies, protests from interested citizens, the briefs of the parties and the staff filed in connection therewith, the Examiner's decision, and the oral argument thereon, the Commission *finds:*

(1) The Brownlee, Oxbow and low Hells Canyon developments proposed by Applicant in the Hells Canyon reach of Snake River would occupy lands of the United States.

(2) The Snake River from its junction with the Columbia River up to the mouth of Henrys Fork is a navigable water of the United States.

(3) The proposed Brownlee, Oxbow and low Hells Canyon developments that would be constructed by Applicant would be located in and along a navigable water of the United States; and they would otherwise affect the interests of interstate or foreign commerce by affecting the downstream navigable capacity of the river.

(4) Under the provisions of Section 23 (b) of the Federal Power Act, the Applicant may not construct, operate or maintain any project or part thereof in Hells Canyon reach of Snake River until a license shall have been obtained therefor pursuant to this Act.

(5) The proposed project consists of:

(a) All lands constituting the project area and enclosed by the project boundary or the limits of which are otherwise defined, and/or interest in such lands necessary or appropriate for the purposes of the project, whether such lands or interest therein are owned or held by the applicant or by the United States; the general location of such project area being shown and described by certain exhibits which formed part of the application for license and which are designated and described as follows:

Exhibit J

FPC No.	*Showing*
1971–2	General Map of Oxbow Development
2132–1	General Map of Hells Canyon Development
2133–1	General Map of Brownlee Development

(b) All project works consisting of—

(1) The proposed Brownlee development, to consist of a rockfill dam having a maximum height of 395 feet and a crest length of 1,320 feet at elevation 2090 feet in the Snake River at river mile 284.6, and a concrete spillway section surmounted by tainter gates, creating a reservoir with a usable storage capacity of 1,000,000 acre-feet at a drawdown of 101 feet below elevation 2077 feet; a controlled intake, power tunnel and penstocks leading to a powerhouse containing initially four turbines each rated at 139,000 horsepower and connected to a 90,100 kilowatt generator operating under a gross static head of 277 feet, with provisions for an additional intake and tunnel and the future installation of two similar units in an extension to the powerhouse; and transmission facilities;

(2) The proposed Oxbow development, to consist of a rockfill dam having a maximum height of 205 feet and a credit length of 725 feet at elevation 1810 feet in the Snake River at river mile 273.2 and a concrete spillway section surmounted by tainter gates, creating a reservoir with a usable storage capacity of 6,200 acre-feet at a drawdown of 5 feet below elevation 1800 feet; a canal, tunnel and penstocks across the Oxbow; a powerhouse containing initially four turbines each rated at 58,000 horsepower and connected to a 37,750 kilowatt generator operating under a gross static head of 117 feet, with provisions for an additional tunnel and the future installation of two similar units in an extension to the powerhouse; and transmission facilities; and

(3) The proposed low Hells Canyon development, to consist of a rockfill dam having a maximum height of 320 feet and a crest length of 860 feet at elevation 1696 feet in the Snake River at river mile 247.5 and a concrete spillway section surmounted by tainter gates, creating a reservoir with a usable storage capacity of 11,200 acre-feet at a drawndown of 5 feet below elevation 1683 feet; an intake and power tunnel and penstocks leading to a powerhouse; a powerhouse containing initially five turbines each rated at 84,000 horsepower and connected to a 54,400 kilowatt generator operating under a gross static head of 208 feet, with provisions for an additional tunnel and intake and the future installation of two turbines each rated at 105,000 horsepower and connected to a 68,000 kilowatt generator in an extension to the powerhouse; and transmission facilities; the location, nature, and character of which are more specifically shown and described by the exhibits heretofore cited and by other exhibits which also formed part of the application for license and which are designated and described as follows:

Exhibit M

General Description and Specifications of Equipment

Brownlee Development: Statement in one sheet received in the office of the Commission on May 15, 1953.

Oxbow Development: Statement in two sheets received in the office of the Commission on July 22, 1953.

Low Hells Canyon Development: Statement in one sheet received in the office of the Commission in May 15, 1953.

(c) All other structures, fixtures, equipment or facilities used or useful in the maintenance and operation of the project and located on the project area, including such portable property as may be used or useful in connection with the project or any part thereof, whether located on or off the project area, if and to the extent

that the inclusion of such property as part of the project is approved or acquiesced in by the Commission; also, all riparian or other rights, the use or possession of which is necessary or appropriate in the maintenance or operation of the project.

(6) Two alternative, mutually exclusive, plans of development have been proposed for development of Hells Canyon reach or Snake River and have been designated for purposes of identification as the one-dam and three-dam plans, the latter plan being proposed by Applicant.

(7) The one-dam plan would include the high Hells Canyon Project to be located 247.3 miles above the mouth of Snake River and having: a concrete arch dam to develop a 602-foot head, eight 100,000-kilowatt generating units initially with provision for one additional 100,000-kilowatt generating unit, a total storage capacity of 4,400,000 acre-feet of which 3,880,000 acre-feet would be active storage, a spillway with a capacity of 300,000 cubic feet per second, and an operating head at the power plant varying from a maximum head of 602 feet to a design head of 475 feet and thence to a minimum head of 313 feet.

(8) The one-dam plan with an initial power installation of 800,000 kilowatts at the high Hells Canyon Project, or the three-dam plan with an initial installation of 783,400 kilowatts, would develop economically the 602-foot head in Hells Canyon reach of Snake River, could utilize the stream flow of the Snake River economically, and would have engineering feasibility.

(9) Projects with safe and adequate structures can be constructed in the Hells Canyon reach of Snake River regardless of whether they be in the one-dam or three-dam plans of development.

(10) Either plan of development hereinbefore described would provide flood control, navigation and recreational benefits in different degrees but would adversely affect fish and wildlife resources.

(11) The one-dam plan of development would provide the 2,300,000 acre-feet of flood control storage the Army contemplates in the main plan whereas the three-dam plan would provide at least 1,000,000 acre-feet of flood control storage and the difference would have to be provided somewhere else. The Department of the Army has not objected to the Applicant's proposal to provide 1,000,000 acre-feet of flood control storage in lieu of the 2,300,000 acre-feet contemplated under the one-dam plan.

(12) The one-dam plan of development would provide more navigation benefits than the three-dam plan would provide, but for either plan such benefits are not substantial dollar-wise when compared to power benefits.

(13) The Chief of Engineers, Department of the Army, has reported that structures which may affect the interests of navigation are satisfactory.

(14) There is a qualitative indication in the record that the one-dam plan would provide somewhat larger recreational benefits than would the three-dam plan, but sufficient comparative data are not available.

(15) None of the developments in either plan of development of Hells Canyon reach of Snake River would directly supply water for irrigation of lands.

(16) Either plan of development of the Hells Canyon reach would result in loss of, and damage to, wildlife resources but such losses could be mitigated in part if lands adjacent to proposed reservoirs were made available for wildlife development purposes.

(17) Either plan of development of the Hells Canyon reach of Snake River would block the runs of anadromous fish and some type of fish facilities would have to be provided for the protection of this resource.

(18) Assuming financing, construction and operation of both plans by the same entity, the ratio of power benefits to power costs of the three-dam plan is greater than that for the one-dam plan, and although the high Hells Canyon Project would produce a greater amount of power than the three-dam plan, the additional amount of power that could be produced by the high Hells Canyon Project would have a benefit-cost ratio of about one to one. Consequently the power features of the one-dam plan have no clear economic advantage over those of the three-dam plan.

(19) Federal construction of either plan of development proposed for the Hells Canyon reach could provide power revenues to subsidize irrigation works if such use is authorized by Congress.

(20) Federal construction of either plan of development proposed for the Hells Canyon reach could make possible a more extensive development of the phosphate resource located on land of the United States in Idaho and Utah than exists today.

(21) Public purposes such as flood control, navigation, recreation, and power production could be effectuated to about the same extent with private construc-

tion, as with Federal construction, of the same developments in the Hells Canyon reach of Snake River.

(22) There is a substantial power market in the area that could be served by projects in either plan considered for development of the Hells Canyon reach of Snake River.

(23) The extent to which electro-metallurgical use would be made of electric power that would be produced by development of the Hells Canyon reach would depend, in part, on the cost of such power.

(24) The general public has indicated an active interest in the plans proposed for development of the Hells Canyon reach of Snake River, and many individuals and spokesmen for groups have testified and submitted written comments thereon.

(25) The Brownlee, Oxbow, and low Hells Canyon developments proposed by Applicant would utilize the head and stream flow in an economical manner.

(26) Safe and adequate structures of the type proposed by Applicant can be constructed in the Hells Canyon reach of the Snake River.

(27) The proposed developments could and would be operated to provide flood control storage and navigation benefits.

(28) Recreational facilities and opportunities would be provided by Applicant at the Brownlee, Oxbow, and low Hells Canyon developments.

(29) The estimated cost of construction, exclusive of interest during construction, of the Brownlee, Oxbow, and low Hells Canyon developments in the amount of $175,766,000 as estimated by the Commission staff appears reasonable. However, the record indicates that the Applicant may be able to construct these developments at a lower cost.

(30) The peak-load requirements of the Idaho Power Company system have been increasing at an average annual rate of about 24,600 kilowatts during the 10-year period 1943 through 1952.

(31) The future peak load of Applicant's system is estimated to increase at an average annual rate of about 30,350 kilowatts.

(32) The total dependable capacity of 767,000 kilowatts that would be provided at the Brownlee, Oxbow, and low Hells Canyon developments would be fully utilized in the Applicant's own system by about the year 1975 and in the Northwest area about as soon as it could be developed if indicated arrangements with other systems can be firmed up.

(33) The estimated annual at-market cost to the Applicant of the power output that could be produced by the proposed Brownlee, Oxbow, and low Hells Canyon developments is $27,921,000 inclusive of annual cost of fish facilities.

(34) The estimated annual value to the Applicant of the power output at market that could be produced by the proposed Brownlee, Oxbow, and low Hells Canyon developments is $36,066,000.

(35) The Brownlee, Oxbow, and low Hells Canyon developments as proposed by Applicant would be economically feasible as power developments.

(36) The Applicant has shown ability to finance the proposed Brownlee, Oxbow and low Hells Canyon developments.

(37) Applicant has investigated power sites on Snake River above the Hells Canyon reach but indications are that such power output would be more expensive than the power output from developments proposed in the Hells Canyon reach.

(38) New steam-electric power stations as sources of power supply alternative to new hydroelectric developments would not be as economical.

(39) The Applicant should provide such fish protective facilities as may be required by the Commission upon the recommendations of the Federal and State fishery authorities.

(40) Applicant should provide means to preserve, to the extent practicable, the wildlife resources.

(41) The Applicant should provide means for conducting an archeological investigation in the Hells Canyon reach of the Snake River.

(42) The Applicant should coordinate the operation of its proposed Brownlee, Oxbow and low Hells Canyon developments and its power system with the Northwest Power Pool.

(43) The Idaho Power Company is a corporation organized under the laws of the State of Maine and is duly authorized to do business in the States of Idaho, Oregon and Nevada, and has submitted satisfactory evidence of compliance with the requirements of all applicable State laws insofar as necessary to effect the purposes of a license for each of the developments, namely, Brownlee, Oxbow and low Hells Canyon.

(44) No conflicting application is before the Commission. Public notice has been given as required by the Act.

(45) The proposed developments will not use any Government navigation dam, nor will the issuance of a license therefor as hereinafter provided affect the development of any water resources for public purposes which should be undertaken by the United States.

(46) The issuance of a license for the proposed developments as hereafter provided will not interfere or be inconsistent with the purposes for which the Payette, Whitman, and Wallowa National Forests were created or acquired nor with the purposes of any withdrawal of public lands.

(47) The three proposed power developments should be considered as a single project.

(48) The proposed project is best adapted to a comprehensive plan for improving or developing a waterway for the use or benefit of interstate or foreign commerce, for the improvement and utilization of water-power development, and for other beneficial public uses, including recreation purposes.

(49) The total installed horsepower capacity of the project hereinafter authorized for the purpose of computing the capacity component of the administrative annual charge is 1,208,000 horsepower.

(50) The amount of annual charges to be paid under the license for the purpose of reimbursing the United States for the costs of administration of Part I of the Act, is reasonable as hereinafter fixed and specified.

(51) In accordance with Section 10 (d) of the Act, the rate of return upon the net investment in the proposed project, and the proportion of surplus earnings to be paid into and held in amortization reserves, are reasonable as hereinafter specified.

(52) Inasmuch as the record shows a need for revision of same, the Applicant should be required to file revised Exhibits F, K, and L as hereinafter provided.

(53) The amount of reasonable annual charges for the use, occupancy, and enjoyment of lands of the United States to be occupied by the proposed project, including transmission line right-of-way, shall be hereafter fixed and specified by the Commission.

(54) The following described Exhibit J drawings and Exhibit M, filed as parts of the applications for licenses for Projects Nos. 1971, 2132 and 2133, conform to the Commission's rules and regulations and should be approved as part of the license for the project:

Exhibit J: (FPC No. 1971–2), Oxbow H. E. Development, General Map;
(FPC No. 2132–2), Hells Canyon H. E. Development, General Map;
(FPC No. 2133–1), Brownlee H. E. Development, General Map.

Exhibit M: General description and specifications of equipment for Projects Nos. 1971, 2132 and 2133 (three exhibits).

(55) It is desirable to reserve for future Commission determination the question of what transmission lines and appurtenant facilities, if any, shall be included in this license.

The Commission *orders:*

(A) This license is issued to Idaho Power Company under Section 4 (e) of the Federal Power Act for a period of fifty (50) years, effective as of the first day of the month in which the acknowledgment of acceptance hereof is filed with the Commission, for the construction, operation, and maintenance of the proposed Brownlee, Oxbow, and low Hells Canyon developments (which developments for the purposes of this license, shall be considered as units of one complete project designated in the records of the Commission as Project No. 1971), subject to the terms and conditions of the Act which is incorporated by reference as a part of this license, and subject to such rules and regulations as the Commission has issued or prescribed under the provisions of the Act.

(B) This license is also subject to the terms and conditions set forth in Form L–6, December 15, 1953, entitled "Terms and Conditions of License for Unconstructed Major Project Affecting Navigable Waters and Lands of the United States," which terms and conditions are attached hereto and made a part hereof; and subject to the following special conditions set forth herein as additional articles:

Article 28. The Licensee shall construct the project works as follows:

(a) Commence construction of the Brownlee unit within one year of the effective date of this license, and shall thereafter in good faith and with due diligence prosecute such construction; and shall complete that unit in 36 months.

(b) Commence construction of the Oxbow unit within four years of the effective date of this license, and shall thereafter in good faith and with due diligence prosecute such construction; and shall complete that unit in 24 months.

(c) Commence construction of the low Hells Canyon unit within six years of the effective date of this license, and shall thereafter in good faith and with due diligence prosecute such construction; and shall complete that unit in 36 months.

Article 29. The Licensee shall submit, in accordance with the Commission's rules and regulations, revised Exhibit L, and Licensee shall not begin construction of the project works in any unit until the Commission approves the exhibits relating to that unit.

Article 30. The final design of the spillways at the dams of the proposed project shall be based on model tests.

Article 31. The Licensee shall, within one year from the date of commencement of construction of each unit, file with the Commission Exhibits F and K in accordance with the rules and regulations of the Commission.

Article 32. The Licensee shall prior to flooding clear lands in the bottoms and margin of the reservoirs up to high water level, and shall dispose of all temporary structures, unused timber, brush, refuse, or inflammable material resulting from the clearing of the lands or from the construction and maintenance of the projects works. In addition, all trees along the margin of the reservoirs which may die during the operation of the project shall be removed. The clearing of the lands and the disposal of the material shall be done with due diligence and to the satisfaction of the authorized representative of the Commission.

Article 33. The Licensee shall cooperate with the Smithsonian Institution in the salvage of archeological values at four sites recommended by that Institution in a report dated January 1951 (Exhibit 10), and the Licensee shall, upon request of the Institution and further order of the Commission, contribute to that Institution the sum of $12,000 for archeological excavations.

Article 34. The Licensee shall make available to the Secretary of the Interior, upon his request and further order of the Commission, a sum up to $250,000 for use by the Fish and Wildlife Service to carry out detailed studies of the extent and character of the fishery resource of the project areas and to devise means and measures for mitigating losses to that resource.

Article 35. The Licensee shall construct, maintain and operate or shall arrange for the construction, maintenance and operation of such fish ladders, fish traps or other fish handling facilities or fish protective devices and provide fish hatchery facilities for the purpose of conserving the fishery resources and comply with such reasonable modifications of the project structures and operation in the interest of fish life as may be prescribed hereafter by the Commission upon its own motion or upon the recommendations of the Secretary of the Interior and the conservation agencies of the States of Idaho and Oregon.

Article 36. The Licensee shall negotiate with the Fish and Game Commission of the State of Oregon and Department of Fish and Game of the State of Idaho with respect to the amount the Licensee shall pay each year to defray a reasonable portion of the operation and maintenance cost of fishery facilities to be provided under the license. Should the Licensee and the State agencies fail to agree on the amount to be paid by the Licensee for such purpose, the Commission reserves the right to determine the amount of this annual payment after notice and opportunity for hearing.

Article 37. The Licensee shall negotiate with the Game Commission of the State of Oregon and the Department of Fish and Game of the State of Idaho with respect to the acquisition by the Licensee for the State agencies of island and marsh areas along the Snake River for development as substitutes for waterfowl nesting areas to be lost by reservoir inundation. Should the Licensee and the State agencies fail to agree on the acquisition of such lands, the Commission reserves the right to make a final determination in this matter after notice and opportunity for hearing.

Article 38. The Licensee shall make available to the Secretary of the Interior, upon his request and further order of the Commission, a sum up to $60,000 for the preparation by the National Park Service in cooperation with Licensee, of a recreational master plan.

Article 39. The Licensee shall operate the project and its system in coordination with the Northwest Power Pool and shall arrange for such transmission facilities as may be required for such operation.

Article 40. At such time as the Commission may direct and to the extent that it is economically sound and in the public interest to do so, after notice and opportunity for hearing, the Licensee shall install additional generating units at the Brownlee, Oxbow, and/or low Hells Canyon units.

Article 41. The project shall be operated in such manner as will not conflict with the future depletion in flow of the waters of Snake River and its tributaries, or prevent or interfere with the future upstream diversion and use of such water above the backwater created by the project, for the irrigation of lands and other beneficial consumptive uses in the Snake River waterhead.

Article 42. In the interest of flood control the Licensee shall operate the project as follows:

(a) The total live storage space of about 1,000,000 acre-feet between elevation 1976 and elevation 2,077 mean sea level will be made available for flood control use if and as required.

(b) The reservoir level elevation will be no higher than elevation 2,034 by 1 March of each year to provide about 500,000 acre-feet of storage space for flood control use at that time each year.

(c) Additional storage space required up to 500,000 acre-feet will be obtained by evacuation as necessary during the month of March in a manner to insure availability on or before 1 April of the total storage capacity needed for flood control, as estimated by the Corps of Engineers. This space will be retained until capture of flood flows is requested by the Corps of Engineers, subject to possible involuntary storage as may be required due to temporary inflows in excess of outlet capacity, or until refilling in the interest of power output is authorized by the Corps of Engineers. In the event of involuntary storage, full capacity will be regained as soon as possible.

(d) During the flood storage period controlled outflows will be as requested by the Corps of Engineers. Daily outflows of 30,000 acre-feet, as a minimum, will be permitted when required for power purposes.

(e) In order to achieve the above operation for flood control, discharge capacity of 65,000 c. f. s. at minimum pool, evaluation 1976, including gated outlet capacity plus one-half of the ultimate turbine capacity, is to be provided by the Licensee.

(f) The above conditions will be subject to review from time to time as requested by the Licensee or the Corps of Engineers.

Article 43. The project shall be operated in the interest of navigation to maintain 13,000 c. f. s. flow in the Snake River at Lime Point (river mile 172) a minimum of 95% of the time, when determined by the Chief of Engineers to be necessary for navigation. Regulated flows of less than 13,000 c. f. s. will be limited to the months of July, August, and September, during which time operation of the project would be in the best interest of power and navigation, as mutually agreed to by the Licensee and the Corps of Engineers. The minimum flow during periods of low flow or normal minimum plant operations will be 5,000 c. f. s. at Johnson's Bar, at which point the maximum variation in river stage will not exceed one foot per hour. These conditions will be subject to review from time to time as requested by either party.

Article 44. The Licensee shall pay the United States the following annual charges for the purpose of reimbursing it for the costs of administration of Part I of the Act: One (1) cent per horsepower on the authorized installed capacity (1,208,000 horsepower) plus two and one-half (2½) cents per 1000 kilowatt-hours of gross energy generated by the project during the calendar year for which charge is made. The Licensee shall also pay to the United States such charges as may be specified hereafter for the purpose of recompensing the United States for the use, occupancy and enjoyment of its lands, including transmission line right-of-way.

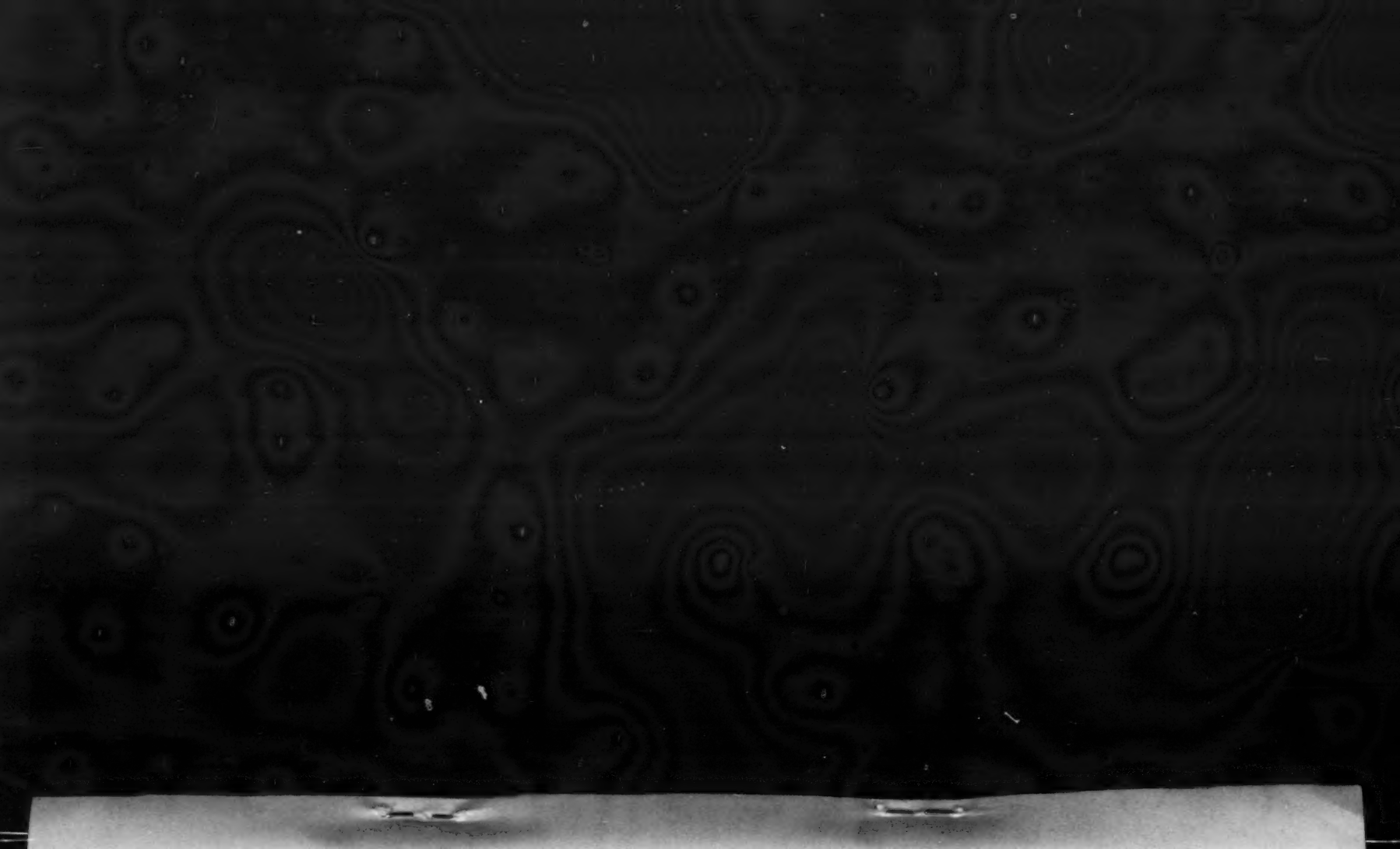
Article 45. The Commission expressly reserves the right to determine at a later date the question of what transmission lines and appurtenant facilities, if any, shall be covered in this license and included as part of the project works.

(C) The exhibits described in finding (54) above are approved as part of the license for the project.

(D) This order shall become final thirty (30) days from the date of its issuance unless application for rehearing shall be filed as provided by Section 313 (a) of the Act, and failure to file such an application shall constitute acceptance of this license. In acknowledgement of the acceptance of this license, it shall be signed for the Licensee and returned to the Commission within sixty (60) days from the date of issuance of this order.

By the Commission.

LEON M. FUQUAY, *Secretary.*

Adopted: July 27, 1955.
Issued: August 4, 1955.

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